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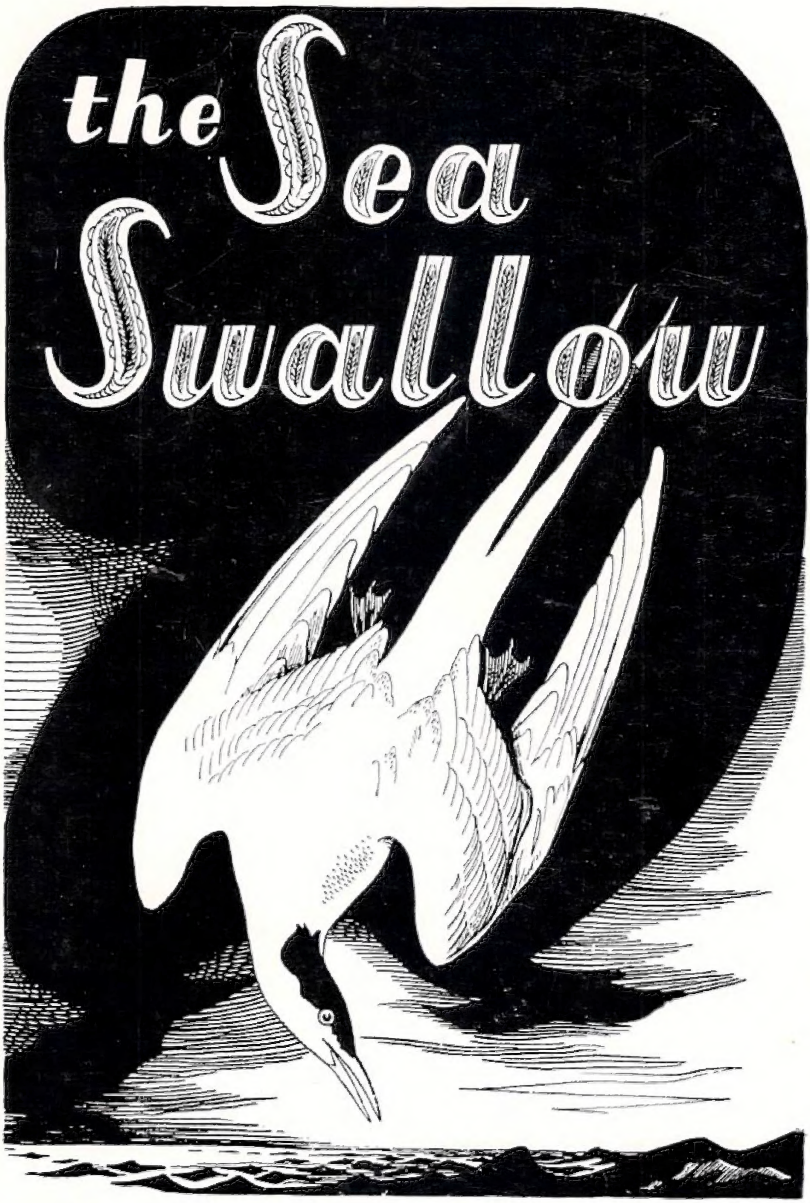

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OF THE ROYAL NAVAL
BIRD WATCHING SOCIETY

PUBLISHED 1974

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Aden Gull, *Larus hemprichi*
Adult, summer
Photo: W. T. Jones, R.N.B.W.S.

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FOREWORD

Since the R.N.B.W.S. has become known over the years, not only in our own country but overseas, it often receives requests from sources outside the society such as authorities concerned with the preservation of species and also from persons about to embark on long overseas voyages for details of the seabirds likely to be seen as the passage proceeds. These aspects are not referred to normally in *Sea Swallow*.

As an example it was learned a short time ago that the allied navies intended to conduct bombardment exercises at the Island of Selvagens in the Atlantic, which is probably the only remaining breeding ground of Cory's Shearwater. Several important authorities such as the Smithsonian and the British Museum were worried by this, and in the event the R.N.B.W.S. had no difficulty in persuading the N.A.T.O. authorities to conduct their exercise elsewhere.

In late March, 1973, Dr W. R. P. Bourne and Dr Harris were anxious to undertake a survey of the seabirds within the Straits of Gibraltar, particularly at the eastward approaches where solid oil residue was known to occur on the beaches. R.N.B.W.S. approached the Flag Officer, Gibraltar, Rear-Admiral H. W. E. Hollins, who most kindly arranged a passage on two occasions in H.M.S. *Arlington* during which useful data was recorded.

In this volume readers will see an account of Dr W. L. N. Tickell's visit to Torishima Island in which he has kindly acknowledged the manner in which this was made possible. We are delighted to have initiated the means of placing him on the island on which he was able to throw the latest information on the status of the rare Short-tailed Albatross.

R.N.B.W.S. acknowledges with thanks the helpful co-operation of the Naval Authorities, particularly the Flag Officer, Gibraltar, and the Commander-in-Chief, Fleet, Admiral Sir Edward Ashmore, who made these projects possible.

More recently R.N.B.W.S. has supplied data covering the seabirds on a long prospective voyage of a 386 ton barquentine carrying a crew of some 40 volunteers sailing from England through the Panama Canal and thence through a number of tropical Pacific Ocean Islands to New Britain, New Guinea, the Solomon Islands and so to Sydney in Australia.

One could quote further instances covering yachts crossing the North Atlantic and through the Panama Canal this year.

To those members who have generously provided slide transparencies for our slide library I am sure they will appreciate the fact that our Chairman has found time to make use of these on many occasions in talks on seabirds round the world to a variety of societies.

I feel that the R.N.B.W.S. can make a significant contribution to helping those who are interested and concerned about the future of the seabird population of the world and we should be only too delighted to give assistance when we can.

NIGEL HENDERSON, *President*

EDITORIAL

NEW ASSISTANT SECRETARY. Commander Michael B. Casement, Royal Navy, has recently assumed responsibility for recording and analysing reports on landbirds observed at sea, including such Ocean Weather Ship records. His report included in this volume includes more detail and is laid out in a somewhat different form than previously.

All landbird report forms should continue to be forwarded in the first instance direct to the Editor (Capt. Tuck) for onward transmission.

CONTENTS OF NEWS BULLETINS. Our R.N.B.W.S. Bulletins are issued periodically to full members only. New members who do not receive back copies, and others associated with our Society, may therefore miss certain announcements of a more permanent nature in which they may be interested, although they remain principally for the guidance of our observers at sea.

A selection of these items is as follows:

PIGEONS ONBOARD WHOSE RING NUMBERS CAN BE OBTAINED

Members should report details on the rings DIRECT to the Secretary, Royal National Homing Pigeon Association, The Reddings, nr. Cheltenham, Gloucester. Details should include date on board, position in latitude and longitude, duration of stay onboard, date and position of departure, or whether died. The member's name, address and R.N.B.W.S. Report should be added. Similar details should be included in routine Sea Report Sheets landbirds.

SEA AND LANDBIRDS FOUND DEAD OR WHICH DIE ONBOARD SHIPS

The British Museum (Natural History), Sub-department of Ornithology, Tring, Hertfordshire, welcomes receipt of specimens of all species. Only birds with gross damage to tissue (e.g. loss of head or grossly mutilated) should be discarded.

Preservation: Deep freeze is the best in ships, and birds must be intact and not gutted. They must be placed in a well sealed plastic bag before being put into the deep freeze, otherwise they will "freeze dry".

Labelling: A label must be attached to the specimen, written clearly in PENCIL, giving identity if known, date, position of recovery in latitude and longitude, and sender's name, home address and R.N.B.W.S. If an examination form of a bird taken in the hand has been completed a copy should be included.

Onward transmission: The specimen should be well padded and placed in a stiff cardboard box to prevent crushing. In ships returning to the U.K. in a reasonable time it is best to defer posting until arrival. Large species where packing would be difficult should be

retained and contact made as soon as possible with the secretary at the address overleaf when arrangements will be made for transportation.

REPORTING AND TREATMENT OF OILED BIRDS ON-BOARD – NEW ADDRESS, BRIEF INSTRUCTIONS

Members are asked to co-operate by forwarding details DIRECT to Mr Colin Biddy, Research Department, The Lodge, Sandy, SG19 2DL, Bedfordshire. Such reports are valuable and the details fed into the Advisory Committee on Oil Pollution at sea. Details should include identity of species, both those which land onboard, and those observed at sea; date; position in latitude and longitude; extent of oiling, and for birds observed in the water whether able to fly or not; whether oil slicks were present in the area, strength and direction of wind. Quote your name, home address and R.N.B.W.S.

Preliminary Treatment: Ships will not be able to undertake lengthy rehabilitation. Briefly a bird should not be cleaned at once, but kept WARM and QUIET wrapped in a cloth with head and legs only protruding, to prevent it preening and swallowing more oil, and placed in a cardboard box in a warm place. Feeding should start at once, seabirds with small fillets of raw white fish or drops of cod liver oil, gently forcibly fed if necessary. Coat feet with Dettol ointment or hand cream to prevent cracking.

Treatment: Wash the bird thoroughly in a warm solution of "washing-up" liquid (Co-op type or 'Winfield' from Woolworths – $\frac{1}{4}$ pint of detergent to 3 gallons of hand-hot water (40-45 degrees C or 104-110 degrees F)). Hold bird immersed and agitate water and separate feathers. A second similar wash is usually needed. Finally rinse in clean hand-hot water. Dry the bird by mopping with a clean cloth and place it at once in a really warm place. Allow it to preen and continue feeding as it gains strength.

Note: A full pamphlet can be obtained from The Research Unit, Department of Zoology, University of Newcastle-upon-Tyne, by enclosing 25p.

REVIEW OF OBSERVATIONS OF SEABIRDS

The review of past observations kindly undertaken by Dr W. R. P. Bourne has been omitted from this volume in order not to delay publication unduly. The collation of this material is continuing and publication is being deberred until a subsequent volume.

G. S. TUCK, *Editor.*

SEABIRDS OF THE PERSIAN GULF (THE GULF) AND GULF OF OMAN A SURVEY (1958–1973)

By Captain G. S. Tuck, D.S.O., R.N.

What follows aims to collate information from records of members of the Royal Naval Birdwatching Society operating in the area between 1958 and 1973, together with much valuable local information, placed at my disposal by Major Michael Gallagher and members of the Gulf Birdwatching Group (up to mid-1971).

The general area is one which combines a considerable variety of seabirds, not only resident species but also as an assembly and resting point for migrants. Some may be passing migrants, others remaining over several months, in some cases stragglers or non-breeders being observed throughout the year.

The information available cannot be considered comprehensive, but may provide a basis for further exploration and information.

Full detailed descriptions of species are not given, but salient points of plumage and flight characteristics where applicable to assist observers unacquainted with the species.

ABBREVIATIONS:

ST – Status. ID – Identification. BR – Proved to breed.
RES – Resident. SV – Summer visitor. WV – Winter visitor.
PM – Passing migrant. Size in words (measured tip of bill to tip of longest tail feathers). WS – Wing Span.

NOTE: In some cases PM may be combined with SV or WV. For positions of breeding islands see map.

OCEANIC SPECIES

PROCELLARIIDAE

PALE-FOOTED SHEARWATER, *Puffinus carneipes*

Medium, 20 ins, 509 mm, WS 43 ins, 1093 mm

ST: PM July to November. Seen off Arabian coast, and in mouth of Gulf of Oman occasionally, moulting during latter period.

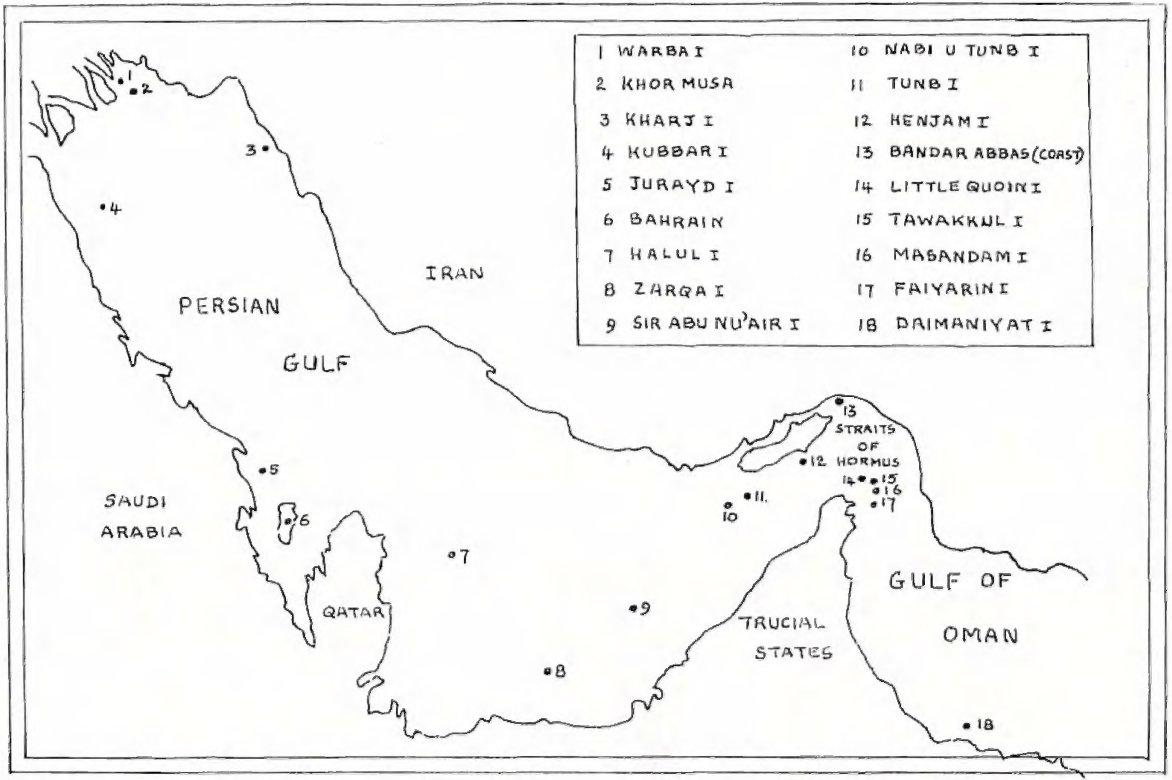
ID: Uniform chocolate-brown; long straw-coloured bill, dark tip; flesh-coloured legs; round tail. Flight: Flaps, glides low over sea rather heavily; lacks grace of Wedge-tailed Shearwater.

BR: Note: Off islands in south-western Australia and Amsterdam/St. Paul Is. Migrates across Equator towards Arabian Sea.

WEDGE-TAILED SHEARWATER, *Puffinus pacificus*

Medium, 15.5 ins, 394 mm, WS 38 ins, 965 mm

ST: PM, SV and WV. Common off Arabian coast. Reported in some numbers once in Gulf of Oman July to October but does not enter the Gulf. Has been observed at all seasons, probably non-breeders remaining.


1 WARBA I
2 KHOR MUSA
3 KHARJ I
4 KUBBAR I
5 JURAYD I
6 BAHRAIN
7 HALUL I
8 ZARQA I
9 SIR ABU NU'AIR I
10 NABI U TUNB I
11 TUNB I
12 HENJAM I
13 BANDAR ABBAS (COAST)
14 LITTLE QUOIN I
15 TAWAKKUL I
16 MASANDAM I
17 FAIYARIN I
18 DAIMANIYAT I
PERSIAN GULF
IRAN
SAUDI ARABIA
QATAR
TRUCIAL STATES
GULF OF OMAN
STRAITS OF HORMUS

Wedge-tailed Shearwater, *Puffinus pacificus*. Dark phase
Photo: R.N.B.W.S.

Jouanin's Petrel, *Bulweria fallax*
Photo: R. S. Baily

ID: Occurs in dark phase. Uniform dark chocolate-brown; slightly smaller, darker and more lightly built than Pale-footed Shearwater; long slender grey bill; noticeably long wedge-shaped tail; legs flesh-colour. Flight: usually low over the sea, frequently banking and shearwatering, with easy graceful flight. In stronger winds rises more steeply.

BR: Note: Breeds on Indian Ocean islands south of the Equator in the southern summer (November onwards), dispersing north of Equator thereafter.

PERSIAN SHEARWATER, *Puffinus l'herminieri persicus*
Small, 12-13 ins, 305-330 mm, WS 27 ins, 686 mm

ST: ?RES. Frequently seen in very large flocks at all seasons in the Gulf of Oman and the Gulf.

ID: Dark brown upperparts, central area of underbody white, sides and flanks brownish; centre of underwing white with broad dark margins; bill long, grey; legs pale flesh-colour; tail short, round. Flight: Rapid flutters and glides low over sea, circling and settling freely.

BR: Not proven in area as yet, but islands off the Makran coast are probable.

JOUANIN'S PETREL, *Bulweria fallax*
Small-medium, 14 ins, 356 mm

ST: RES. ?PM. Seen in Gulf of Oman at all seasons. Does not appear to enter the Persian Gulf.

ID: Lightly built; uniform brownish-black, sometimes showing paler upperwing coverts; noticeably short stout black bill; legs flesh-coloured; wings long, slender; tail longish, wedge-shaped. Flight: Very fast, swooping and rising high over sea. Note: Sometimes confused with Wedge-tailed Shearwater in area. Thick short bill and more slender wings help to identify.

BR: Not proven in area; breeding areas yet to be discovered, possibly somewhat further south.

HYDROBATIDAE

WILSON'S STORM-PETREL, *Oceanites oceanicus*
Very small, 7-7.5 ins, 178-191 mm, WS 16 ins, 406 mm

ST: PM. SV. WV. July to December. Frequently seen in large flocks in the Gulf of Oman, occasionally penetrating into Persian Gulf.

ID: Sooty-black, palish band across upperwing coverts; white patch above rump; bill short, black; legs long, webs of feet yellow; legs protrude beyond tail in flight; tail square. Flight: Short glides, loose wingbeats. When searching for food hops and flutters, long legs touching water. Follows ships.

BR: Note: Breeds on islands far south in Southern Hemisphere, migrating across Equator to occur in great numbers off coast of Arabia in June and onwards to Gulf of Oman.

PHAETHONTIDAE

RED-BILLED TROPIC-BIRD, *Phaethon aethereus*

Medium 24 ins, 609 mm (including tail streamers 38 ins, 955 mm)

ST: RES. Frequently seen in Gulf of Oman and Straits of Hormuz, less so within the Gulf. Also highly oceanic. The only species of this family to occur.

ID: Adult. Mainly white; black crescent through eye; whole upperparts show fine black barring; leading primaries black (as black outer wing tip); bill stout, coral red; legs greyish, webs black; extremely long white central tail streamers. Immatures heavily speckled overall without extended tails.

BR: Nests not finally observed but almost certain. Reported by several observers entering crannies in cliffs at following islands: Tawakkul (W. B. Crone, R.N.B.W.S., 1962). Faiyarin. Little Quoin. Meinertzhagen (*Birds of Arabia*) however mentions breeding (eggs) on Nabi-u-Tunb I, Masandam I, and Kubbari I in late April.

Note: To prevent confusion. White-tailed Tropic-bird, *Phaethon lepturus*, is all white but shows a black band across upperwing coverts together with black outer wing tip and yellowish bill.

PELECANIDAE

DALMATION PELICAN. *Pelecanus crispus*

Outsize, 32-36 ins, 813-915 mm, WS 60 ins, 1524 mm

ST: WV. A few records at Khor Musa in December: others at Bandar Abbas on coast and in Clarence Straits (November 1970, Lt. R. A. Smith, R.N., R.N.B.W.S.).

ID: Adults breeding. Appears somewhat greyer than Eastern White Pelican. *Pelecanus onocrotalus*, but differs chiefly in its grey legs (pink legs in Eastern White Pelican). Immatures of both species brownish-grey above, underparts white, and difficult to distinguish.

BR: Breeds further north on lakes in Asia Minor, Iran and elsewhere.

SULIDAE

BLUE-FACED OR MASKED BOOBY, *Sula dactylatra*

Outsize, 32-36 ins, 813-915 mm, WS 60 ins, 1524 mm

ST: Occasionally only off coast of Oman and Masandam Peninsula. Is seen regularly off coast of Arabia further south at all seasons from Kuria Muria Is to Ras al Hadd.

ID: Mainly white; primary, secondary flight feathers and tail brown; naked skin on face and throat bluish-black (masked appearance); bill stout, pointed, usually yellowish; legs vary, usually greyish-blue.

BR: Kuria Muria Is, 18°N, 56°E.

PHALACROCORACIDAE

SOCOTRA CORMORANT, *Phalacrocorax nigrogularis*

Very large, 30 ins, 762 mm

ST: RES within Gulf. Sometimes seen in huge flocks flying between islands in winter months.

ID: Adult breeding. Glossy black overall; upperwing coverts and scapulars tinged bronze; some white flecks on hindneck and throat; bill greyish-black; legs black; naked skin on face dark. Immatures show light brown upperparts and mainly white underparts; naked skin on face yellow.

BR: Zarqa I, Karj I and probably on other islands.

COMMON CORMORANT, *Phalacrocorax carbo sinensis*

Outsize, 36 ins, 915 mm, WS 60 ins, 1524 mm

ST: WV. Common November to March.

ID: Adult winter. Larger than Socotra Cormorant and distinguished by white cheeks and chin (in breeding dress also by white thigh patches, a dark band from eye circling sides of face and throat, and much white on nape and neck).

PHALAROPODIDAE

RED-NECKED PHALAROPE, *Lobipes lobatus*

Very small, 6.5-8 ins, 165-203 mm, WS 14 ins, 356 mm

ST: PM. October to April. Very large flocks seen regularly at sea in Gulf of Oman, Straits of Hormuz, but more rarely within Gulf. Extends southwards off Arabian coast to Gulf of Aden. Winters at sea.

ID: Winter plumage. Head, underparts white; dusky patch below eye; upperparts bluish-grey with streaking, wings darker; neck longish, very thin; bill dark, slender, needle like; white wing-bar shows in flight. Flight: Rapid jerky wingbeats for short distances settling frequently; paddles, twirls and pecks hurriedly for surface plankton.

STERCORARIIDAE

Unlike species which migrate in flocks Skuas most frequently migrate singly or in twos or threes. Do not "stop over" within area.

GREAT SKUA, *Catharacta skua*

Medium-large, 21-24 ins, 533-610 mm, WS 59 ins, 1498 mm

ST: Uncertain, doubtful PM. One report Gulf of Oman, July. More information required.

ID: Rather heavy build; overall brownish; noticeable white patches on upperwings at base of primaries; stout blackish bill; legs black. Flight: At leisure appears heavy; can swoop swiftly at prey. Often follows ships.

POMARINE SKUA, *Stercorarius pomarinus*
Medium-large, 21 ins, 533 mm, WS 45 ins, 1144 mm

ST: PM. Northwards May, June; Southwards from October. Regular migrant across Gulf of Oman, Straits of Hormuz and Gulf. One flypath passes through Mozambique Channel to and from southern Africa.

ID: Noticeably smaller than Great Skua. Adult: Top of head black; sides of head, neck straw colour; front of neck, breast white, usually dusky band across breast; upperparts brown, indistinct pale patches; bill and legs dark. Feature to observe, projecting central tail feathers (about 2 ins), showing broad round twisted tips. Occurs also in dark phase with underparts dark. Flight: Strong, rapid.

ARCTIC SKUA, *Stercolarius parasiticus*
Medium, 17-20 ins, 432-508 mm, WS 40 ins, 1016 mm

ST: PM. Doubtful. Reported once or twice in Gulf and Gulf of Oman at similar dates to Pomarine Skua. Confusion is not uncommon; more positive information needed.

ID: Smaller and more "falcon like" but otherwise very similar to Pomarine Skua; tail longish wedge-shaped. Feature, projecting central tail feathers (about 3 ins), narrow and sharply pointed. Also occurs in dark phase.
Note: In both cases immatures show dark barring on underparts and lack protruding tail feathers. So do adults in moult. Almost impossible to distinguish between immatures of other species.

LARIDAE

The area is favoured by a considerable variety of Gulls which tend to cling to coastlines and islands, numbers increasing greatly during autumn and winter due to inflow of migrants.

SLENDER-BILLED GULL, *Larus genei*
Medium, 15.5-18.5 ins, 394-470 mm, WS 37 ins, 940 mm

ST: SV. WV. Some present throughout year; common inshore; feeds off shore line on fish.

ID: Adult breeding. Somewhat similar to Northern Black-headed Gull in winter plumage but head always white; legs and bill red; bill noticeably slender.

BR: Henjam I. (April, May), Sir Abu Na'ir I. (nesting, June 1971. Maj.-Gen. J. C. Cowley).

NORTHERN BLACK-HEADED GULL, *Larus ridibundus*
Medium, 15-17 ins, 381-432 mm, WS 36 ins, 915 mm

ST: WV. November to April. Common inshore; scavenges in harbours, abundant at times in winter months.

ID: Adult breeding. Head coffee-brown (breeding head may

appear in January); in winter head white, dusky mark behind eye. Mantle, upperwing coverts blue-grey; underparts white; bill and legs red. Flight: Broad white leading edge of leading black primaries noticeable.

ADEN GULL (Sooty or Hemprich's), *Larus hemprichi*
Medium, 17.5-18.5 ins, 440-470 mm

ST: RES. Inshore, scavenges.
ID: Adult breeding. Head, nape, throat coffee-brown; white collar, eyelids white; upperparts, underwing greyish-brown; breast pale brown; rest of underparts and tail white; bill greenish, black sub-terminal band, red tip; legs yellowish. In winter, head, throat mottled, collar inconspicuous, greyish-brown.
BR: Probable in area of Sir Abu Na'ir I. (40 pairs nesting June 1971. Maj.-Gen. J. C. Cowley).

COMMON OR MEW GULL, *Larus canus*
Medium, 18 ins, 457 mm, WS 48 ins, 1219 mm

ST: WV. February to March (also recorded April, June, July). Seen mostly at northern end of Gulf. Scavenges inshore.
ID: Adult breeding. Head, neck, underparts, tail white; mantle, upperwing coverts pale grey; outer primaries black, show white tips; bill and legs greenish yellow.

HERRING GULL, *Larus argentatus*
Medium-large, 22-24 ins, 559-610 mm, WS 52 ins, 1320 mm

ST: WV. September to April. Scavenges inshore and on tide line.
ID: Adult breeding. Head, neck, underparts, tail white; mantle, upperwing coverts grey; primaries black, white spots; bill yellow, red spot at angle; legs pinkish.
Note: Some races show yellow legs and darker upperwings, but not as dark as the Lesser Black-backed Gull.

LESSER BLACK-BACKED GULL, *Larus fuscus*
Medium-large, 20-24 ins, 508-610 mm, WS 50 ins, 1270 mm

ST: WV. October to April. Immatures predominate. Inshore scavengers.
ID: Similar to Herring Gull but mantle and upperwing coverts dark slate-grey; legs yellowish. Immatures of first winter coarsely mottled brown; bills and tails blackish-brown. Second year immatures head freckled, underparts, tail white, tail with black terminal band.
Note: Adults. Shade of upperparts varies, the paler birds being probably *Larus fuscus graellsii*, those with almost black upperparts being *Larus fuscus fuscus*.

GREAT BLACK-HEADED GULL, *Larus ichthaetus*
Large, 27 ins, 686 mm

ST: WV. October to April. Regularly seen here and there in small numbers. Omnivorous.

ID: Adult breeding. Easily recognised from other dark hooded Gulls by its exceptionally large size: bill distinctive, yellow with sub-terminal black band and broad tip: legs greenish yellow. In winter head white, streaked. Flight: Broad white area on primaries with sub-terminal black bars noticeable.

INDIAN BLACK-HEADED GULL, *Larus brunnicephalus*
Medium, 16-17 ins, 406-432 mm

ST: Occurrence doubtful. More information needed.

ID: Adult breeding. Similar to Northern Black-headed Gull. Hood brown, paler on forehead, darker on nape. In winter head white. Immatures have greyish-brown heads, mantles and upperwing coverts: outer primaries brown: bill yellowish: legs orange. Flight: Large white patch near wing tips of black outer primaries noticeable.

STERNIDAE

WHISKERED TERN, *Chlidonias hybrida*
Small-medium, 13 ins, 330 mm, WS 27 ins, 686 mm

ST: Occasional visitor, April, September, October.

ID: Adult breeding. Top of head to level of eye black, white streak from bill backwards below cap each side. Upperparts slate-grey: throat, breast grey, remainder of underbody deep blue-grey. Underwings and under tail coverts white; bill and legs deep red. In winter forehead, underbody white; crown streaked black. Hard to distinguish in winter from White-winged Black Tern. Immatures similar to adults but upperparts and tail mottled brown.

WHITE-WINGED BLACK TERN, *Chlidonias leucoptera*
Small, 8.5-9.5 ins, 216-242 mm, WS 26 ins, 660 mm

ST: PM. Passing through spring and autumn. On coasts and marshes.

ID: Adult breeding. Head, neck, upper back, underparts black; mantle and upperwings grey; rump and tail white; underwing linings black; broad white "shoulder" (lesser upperwing coverts) shows against dark flight feathers; bill red in summer, black in winter; legs orange. In winter head mottled white, underbody and underwings white; bill black; tail only slightly forked. Immatures as adults winter but upperparts mottled brown.

GULL-BILLED TERN, *Gelochelidon nilotica*
Medium, 15-16 ins, 381-406 mm, WS 34 ins, 864 mm

ST: WV and SV. Some present all through the year; not uncommon; clings to coast.

ID: Adult breeding. Crown, sides of head glossy black; upperparts, tail pale grey; underparts white; bill black, stout, gull-like; legs reddish-brown, soles black; tail only slightly forked. In winter forehead crown white; black ear patch. Immatures like adults winter but upperparts mottled brown.

BR: Considered to breed along south coast of Iran (D. A. Scott) but colonies not yet reported.

CASPIAN TERN, *Hydroprogne caspia*
Medium-large, 19-22 ins, 483-559 mm, WS 53 ins, 1346 mm

ST: RES. On coasts throughout year, mostly November to April. Most common in northern part of Gulf.

ID: Adult breeding. Forehead, sides of head, crown, nape black, feathers elongated; upperparts, tail grey; underparts white; bill very stout, heavy, red; legs black; tail only slightly forked. Flight: Gull-like. In winter top of head and nape streaked white. Immatures as adults winter; upperparts dusky spotted; bill dull orange.

BR: Warba I. (head of Gulf). Kubbar I. (350 nests, eggs counted, July 1958. V. A. D. Sales, R.N.B.W.S.).

COMMON TERN, *Sterna hirundo*
Small-medium, 12.5-15 ins, 318-381 mm, WS 31 ins, 787 mm

ST: PM. October to May. Reported quite frequently but may be confused with White-cheeked Tern.

ID: Adult breeding. Top of head black; mantle, upperparts medium-grey; breast, abdomen pale-grey; bill scarlet, tip black; legs coral-red. In winter crown and forehead streaked; bill mainly black (some red shows); tail white, deeply forked. Immatures as adults winter but upperparts lightly mottled ashy-brown, dark band on shoulder; legs flesh-colour.

WHITE-CHEEKED TERN, *Sterna repressa*
Small-medium, 12.5-14.5 ins, 318-368 mm

ST: SV. April to October. Common, numerous during spring and summer.

ID: Adult breeding. Very similar to Common Tern but upperparts and tail darkish grey, and underparts much darker grey. A white area shows between black cap and grey underparts: bill and legs as in Common Tern. Immatures as Common Tern.

BR: Bahrain (eggs May, fledglings June). Daimaniyat I. (1,000 nests July 1970, Lt. R. A. Smith, R.N., R.N.B.W.S.). Kubbar I. (est.: 1,000-1,300 nests, eggs, young, July 1958, V. A. D. Sales, R.N.B.W.S.). Masirah I. (up to 2,000 plus, April to

August, young birds seen from late June but no actual breeding colony discovered, June 1971. M. J. Strickland, R.N.B.W.S.). Al Jurayd I. (200 nests with 2-3 eggs, half of eggs hatched, June 1970, R. G. Wilson).

BROWN-WINGED OR BRIDLED TERN, *Sterna anaethetus*
Small-medium, 14-15 ins, 356-381 mm, WS 30 ins, 762 mm

ST: RES. Frequently seen April to October in Gulf, Straits of Hormuz and Gulf of Oman.

ID: Adult breeding. Crown, nape black; black band on each side from bill through eye; narrow white patch on forehead between black bands extends *beyond* level of eyes giving "bridled" appearance; upperparts and tail brownish-grey with whitish band around nape; underbody, underwings, under tail coverts white; bill and legs black; tail deeply forked. Immatures have mottled-brown heads and upperparts, and greyish underparts.
Note: Sooty Tern, *Sterna fuscata*, much darker, brownish-black above. White forehead patch broader and *does not* extend beyond eyes. Shows white piping in flight on leading margin or wings and outer tail feathers. *NO* white band around nape.

BR: Kubbar I. (est.: 2,000-2,500 nests with eggs, chicks, July 1958, V. A. D. Sales, R.N.B.W.S.). Al Jurayd I. (25 nests, eggs, June 1970, R. G. Wilson). Daimaniyat I. (1,000 nests, eggs, young, July 1970, Lt. R. A. Smith, R.N., R.N.B.W.S.). Sir Abu Na'ir I. (thousands nesting, eggs, June 1971, Maj.-Gen. J. C. Cowley). Halul I. (over 5,000 finishing breeding, August 1958, Sub.-Lt. J. Branegan, R.N., R.N.B.W.S.).

SOOTY TERN, *Sterna fuscata*
Medium, 17 ins, 432 mm, WS 34 ins, 864 mm

ST: A very few reports within Gulf and Straits of Hormuz; not yet proven to enter Gulf.

ID: For comparison see under Brown-winged or Bridled Tern.

BR: Within Gulf of Oman. Daimaniyat I. (est.: 1,000 with eggs and young, July 1970, Lt. R. A. Smith, R.N., R.N.B.W.S.).
Note: The Sooty Tern is highly oceanic and clearly disperses eastwards from the coast of Arabia from sea reports received.

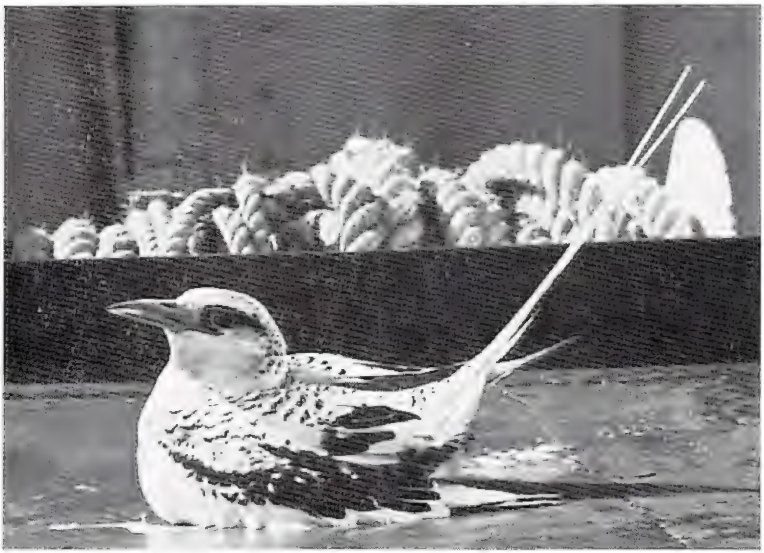
SAUNDER'S LITTLE TERN, *Sterna saundersi* (Hume)
Small, 8-11 ins, 205-280 mm, WS 20 ins, 508 mm

ST: SV and WV.

ID: Adult breeding. Forehead white; crown, nape, band from bill to eye black; mantle, upperwing coverts pearl-grey; outer primaries black; underparts, tail white; bill yellow, tip black; legs yellow; tail deeply forked. In winter crown, nape speckled white. Immatures whitish-buff crown; dark patch from eye

Sooty Tern, *Sterna fuscata*
Photo: R.N.B.W.S.

Note: Blackish-brown above, broad white forehead ends at eye. Brown-winged Tern, (common in Gulf), brownish-grey above, narrow white forehead extends beyond eye.



Red-billed Tropic-bird, *Phaethon aethereus*
Photo: R.N.B.W.S.

round back of head; upperparts greyish, mottled buff; bill black; legs dull yellow. Flight: Light, buoyant rapid wingbeats.

BR: Bahrain (March, April, eggs June). Masirah I. (June, eggs, young).

LITTLE TERN, *Sterna albifrons*

Small, 8-11 ins, 205-280 mm, WS 20 ins, 508 mm

ST: PM. A few appear to remain over winter months.

ID: Similar to Saunder's Little Tern but with grey outer primaries.

LESSER-CRESTED TERN, *Thalasseus bengalensis*

Small-medium, 15-16 ins, 381-407 mm

ST: SV and WV. Some present throughout year. Quite common May to September, but largest flocks in autumn.

ID: Adult breeding. Crown, nape black, feathers elongated; forehead black (white in Crested Tern, *Thalasseus bergii*); mantle and upper wing coverts, pearl-grey; underparts and tail white; bill orange (greenish-yellow in Crested Tern); legs black; tail deeply forked. Immatures, crown mottled-white; mantle, upperparts buffish-white; bill, legs, dull yellow.

BR: Locally in Gulf and coasts of Iran. Al Jurayd I. (200 nests, eggs, June 1970, R. G. Wilson). Halul I. (over 5,000 finishing breeding, August 1958, Sub.-Lt. J. Branegan, R.N., R.N.B.W.S.).

SANDWICH TERN, *Thalasseus sandvicensis*

Medium, 16-18 ins, 406-457 mm, WS 37 ins, 940 mm

ST: PM and WV. Occasional. Recorded February, April, September, December.

ID: Adult breeding. Crown, nape black, feathers elongated; mantle, upperwing, coverts pale pearl-grey; underparts, tail white; bill long, slender, black, tip yellow; legs black; tail less deeply forked than most Terns. Immatures crown, forehead heavily streaked; upperparts mottled-buff; tail grey.

CRESTED TERN, *Thalasseus bergii*

Medium, 18-19 ins, 457-483 mm, WS 43 ins, 1093 mm

ST: Recorded RES along south coast of Iran (D. A. Scott). Occasional. Seen near Bahrain (M. D. Gallagher, T. D. Rogers, *et. al.*); also east of Quatar (M.D.G.).

ID: Adult breeding. Forehead white; crown, nape black; feathers elongated; upper-parts pearl-grey; tail grey. Remainder of plumage white. Bill greenish-yellow; legs dull reddish-brown. (See also Lesser-Crested Tern for comparison.)

ISLANDS QUOTED – POSITIONS

1. Warba I. (Head of Gulf)
2. Khor Musa, 29°58′N, 49°16′E
3. Kharj I, 29°15′N, 50°19′E
4. Kubbar I, 29°6′N, 48°30′E
5. Jurayd I, 27°11′N, 49°52′E
6. Bahrain, 26°05′N, 50°35′E
7. Halul I, 25°30′N, 52°40′E
8. Zarqa I, 24°54′N, 53°05′E
9. Sir Abu Nu'air I, 25°14′N, 54°15′E
10. Nabi U Tunb I, 26°15′N, 55°08′E
11. Tunb I, 26°16′N, 55°18′E
12. Henjam I, 26°38′N, 55°52′E
13. Bandar Abbas (Coast) 27°10′N, 56°10′E
14. Little Quoin I, 26°28′N, 56°31′E
15. Tawakkul I, 26°24′N, 56°29.8′E
16. Masandam I, 26°26′N, 56°31′E
17. Faiyarin I, 26°08′N, 56°32.8′E
18. Daimaniyat I, 23°50′N, 58°06′E

Masirah I, 20°20′N, 58°50′E

Kuria Muria I, 17°30′N, 56°E

Both Masirah I. and the Kuria Muria Is., while outside the area under review, have been mentioned briefly.

(*Footnote:* Check List of the Landbirds and Seabirds of the Persian Gulf. Material is now being assembled for a comprehensive Check List. Records and other information will be gratefully received by: Major M. D. Gallagher, c/o Lloyds Bank Ltd., 6 Pall Mall, London, SW1Y 5HH.

For R.N.B.W.S. Members: This applies only to records not previously forwarded to Major Gallagher, and can be sent most suitably by means of R.N.B.W.S. Report Sheets.)

A VISIT TO THE BREEDING GROUNDS OF STELLER'S ALBATROSS, *Diomedea albatrus*

By W. L. N. Tickell

INTRODUCTION

Steller's or the Short-tailed Albatross, *Diomedea albatrus*, was formerly abundant in the north-west Pacific Ocean where it bred upon islands within the Bonin, Izu, Senkaku, Pescadores and Daito groups. The activities of feather hunters in the late 19th and early 20th centuries appear to have exterminated the species from all breeding sites except Torishima (30°29′N, 140°19′E) in the southern Izu Islands (1).

Of the 13 species of living Albatrosses, Steller's is amongst the least known and one of the rarest birds in existence (2). For many years I have been concerned with studies of Albatrosses in the Southern Hemisphere and in particular with the Wandering Albatross, *Diomedea exulans* (3), one of the two Great Albatrosses. The little information available concerning Steller's Albatross suggests that it is more closely related to the Great Albatrosses than to the smaller representatives of the family (4) and it is thus a key species for understanding relationships within the group. This, together with the concern felt for its survival, makes it of compelling interest for a student of Albatrosses.

TORISHIMA

Torishima is an active volcanic island approximately 2.5 kilometers in diameter, of characteristic shape with an outer caldera

and inner cone, Iwoyama (403 meters). The northern wall of the caldera is breached where the 1939 eruption was centred and two stabilised lava flows descend from it to the sea.

In the 1800s approximately 300 people were employed on the island during the fowling season and Hattori (5) counted over 100,000 birds at the busiest time for feather gathering. In a period of 17 years it was estimated that five million birds were taken. When the Albatrosses were away from the island at least some of the population remained and were possibly employed collecting sulphur. In August 1902 when the island erupted 129 people were killed. This did not harm the Albatross population directly because it was not the breeding season and the birds were away at sea, but the traditional nesting sites were likely to have been inundated with ash or lava which destroyed the vegetation. In spite of the human tragedy, fowling for feathers continued and by 1929 only 1,400 Albatrosses were seen on the island when Professor Yamashina visited it (6). Neither did the declaration of Torishima as a nature reserve stop the killing over the following decade for by 1939 observers from the Yamashina Institute of Ornithology in Tokyo could find only 30-50 birds. In that year another eruption occurred.

Throughout the Second World War Torishima was occupied by a Japanese naval garrison of about 300 men. These sailors were on best "submarine" rations so it was thought unlikely that they contributed to the extinction of the population, indeed it appears that the remnants were by then so few that they were hardly ever seen at the island. In April 1945 one of the garrison reported seeing a large white bird, a fair indication that they were not a common acquaintance (7) (8).

In August 1945 the naval garrison was withdrawn and a civilian meteorological station established with a complement of 20 staff which was later increased to 33. The American ornithologist, Dr Oliver J. Austin, jr, circumnavigated the island in 1949 on board a whale catcher but was prevented from landing by bad weather and sea conditions. He saw no Albatrosses in the vicinity and considered the species extinct (1). The next year, however, Mr M. Yamamato, the chief of the meteorological, found a few nests and was thus able to establish that the species had survived at Tsubakuro-zaki (Swallow Point) on the south slopes of the island (9). In 1956 the breeding site was declared a Natural Monument of the Tokyo Metropolitan Office and in 1961 by the Japanese Government.

Over the following 15 years co-operation between the staffs of the Yamashina Institute for Ornithology and the Tokyo Weather Station on Torishima insured protection of the species which steadily increased from 12 pairs in 1956 to 26 pairs in 1964.

In 1965 the periodic earth tremors which were a constant feature of life on Torishima, became suddenly more violent and, fearing another major eruption all meteorological personnel were

evacuated at short notice. Although no eruption in fact followed, the Tokyo Weather Bureau abandoned the station and the island has been uninhabited ever since.

THE 1973 ROYAL NAVAL EXPEDITION

This was the position at the time the Commander-in-Chief (Fleet), Sir Edward Ashmore, K.C.B., D.S.C., approved my request for assistance to visit Torishima; no one had been on the breeding grounds for eight years and attempts to count from the air and sea had been of little use in measuring the growth of the population (10). So rare and vulnerable a species was bound eventually to generate concern and early in 1973 the International Council for Bird Preservation and the New York Zoological Society agreed jointly to finance a reconnaissance of Torishima made possible by the co-operation of the Royal Navy.

On 29 April 1973 a shore party consisting of Lt. P. C. Morton, R.N., Leading Medical Assistant T. C. Pitts, Radio Operator Trezise, Mr M. Yoshii (Chief of the Japanese Bird Banding Centre) and myself landed from H.M.S. *Brighton* (Commander J. M. Porter, R.N.). During the following week we all lived in the now derelict weather station and explored the island on foot and by boat. The party was evacuated on 5 May by H.M.S. *Antrim* (Captain D. A. Loram, M.V.O., R.N.).

STELLER'S ALBATROSS

Steller's Albatrosses are large birds with wingspans of about 210 cm. An adult with fully developed plumage is white except for black upper wings and a black tail band; the back between the wings is white like that of the Great Albatrosses and the underparts are white. The head and nape are white but diffused with yellow. The bill is pink and proportionally large and around its base is a thin but conspicuous black line that extends back along the edge of the mouth to the gape. Fully fledged young are completely black, but as they grow older they lose the black which is replaced by white progressively beginning with the bill, face and feet. This is a gradual process and the population includes many intermediate plumage stages and birds become breeding adults before the fully developed black and white pattern has been reached. It is not possible at present to say which particular plumage corresponds to the achievement of maturity, but it is certainly incorrect to describe all birds in these intermediate stages as "immatures".

The breeding season begins in October and ends in June so by the time of our visit the 1972-73 season was nearly over and the young, almost fully fledged, were exercising their wings. Parents were visiting the colony very briefly and for most of the time that I was present among the birds few birds in fully developed plumage landed. On 1 May, when I was on the nesting slope all day no adults were in sight in the morning, but between 1400 and 1500 local time numbers began to come in from the sea and spent some

time circling over the slopes, some of them landing occasionally. Later they all flew off and settled together on the sea about half a mile offshore in a raft of about 25 birds of all plumage types.

Nests are scoops in the volcanic ash lined and sometimes built up considerably by the grass *Miscanthus sinensis* which grows in patches on the breeding slopes. As they get older the chicks shuffle and walk about the nests which soon get trampled and by the time I was amongst them no nests were visible.

Before the island was evacuated in 1965 the maximum number of eggs laid was 26 in the previous year. Of these, 12 hatched and 11 of the chicks survived and fledged. In May 1973 there were 24 fledglings and on the basis of the 1964 figures this would indicate a breeding population of about 57 pairs, a net increase of 31 pairs in nine years. When it is remembered that this is almost all the world breeding population it seems dangerously low, but for a species that has been so near to extinction it is large enough to be encouraging and I hope that as a result of this reconnaissance it will be possible to set up a base on Torishima from which to undertake a more thorough long-term investigation of this fascinating bird.

REFERENCES

1. Austin, O. L., jr. 1949. The status of Steller's Albatross. *Pacific Science* 3 : 283-295.
2. Fisher, J., Simon, N. and Vincent, J. 1969. *The Red Book* : 171-172.
3. Tickell, W. L. N. 1968. Biology of the Great Albatrosses in *U.S. Antarctic Research Series* 12 : 1-55.
   (Ed. O. L. Austin, jr.), American Geophysical Union.
4. Fisher, H. I. 1972. Sympatry of Laysan and Black-footed Albatrosses. *Auk* 89 : 381-402.
5. Hattori, T. 1889. The story of the Albatross of Torishima. *Dobutsugaku Zasshi* 1(12) : 405-411.
6. Yamashina, Y. 1931. A trip to Torishima. *Tori* 7(31) : 5-10.
7. Fujisawa, J. 1963. *Meteorological Data and Report of Marcus and Torishima Islands*: 156-168. Japan Meteorological Agency, Tokyo.
8. Fujisawa, J. 1967. *Diomedea albatrus*. Toko Shoin, Tokyo.
9. Ono, Y. 1955. Status of birds on Torishima; particularly of the Steller's Albatross. *Tori* 14 : 24-32.
10. Sanger, G. A. 1972. The Recent Pelagic Status of the Short-tailed Albatross. *Biological Conservation* 4 : 189-193.

ACKNOWLEDGEMENTS

This expedition was possible only because of the co-operation of the Royal Navy. In the text I have named those who were most directly involved; but there were many others who contributed and although I cannot mention all I should like it to be known that the R.N.B.W.S. was involved in the early stages of planning. To Admiral Sir Nigel Henderson, G.B.E., K.C.B., Dr W. R. P. Bourne and many others I offer my grateful thanks.

"Bosun" Bird Island, Ascension Island. Photo: R.N.B.W.S.

SOME VISITS TO ASCENSION ISLAND

By Captain P. J. Rose, M.N.

(Note by Editor: Conservation of bird life on Ascension Island has recently attracted attention. In this article Captain Rose describes the island as he first saw it in 1942 and later during service in mail vessels. The following species of seabirds breed locally: Madeiran Storm-petrel, *Oceanodroma castro*. Red-billed Tropic-bird, *Phaethon aethereus*. White-tailed Tropic-bird, *Phaethon lepturus*. Blue-faced Booby, *Sula dactylatra*. Red-footed Booby, *Sula sula*. Brown Booby, *Sula leucogaster*. Ascension Frigate-bird, *Fregata aquila*. Sooty Tern ("Wideawake Tern"), *Sterna fuscata*. White or Love Tern, *Gygis alba*. Common Noddy, *Anous stolidus*. White-capped Noddy, *Anous minutus*.)

When I first visited Ascension Island in January 1942 I was not unduly excited for its view from the sea presents a rugged and uninviting appearance. As its name implies it was discovered on Ascension Day in 1501 by a Portuguese navigator, and was taken over by the British Government in 1815. The island is of volcanic origin and covers an area of 34 square miles. About 40 cones of various heights are visible, being extinct craters. The highest point of the island is Green Mountain at a height of 2817 feet. There is a long aircraft runway on the south side of the island.

In 1942 the population consisted entirely of employees of Cable and Wireless Ltd., but in recent years it has become also a tracking station for the American space programme and a B.B.C. radio station.

In September 1965 whilst serving in M.V. *Kenilworth Castle* I was invited ashore by the Manager of Cable and Wireless, an old acquaintance of mine. Starting off by car after lunch we first visited the aircraft runway, a short distance from which is a small cove known as Mars Bay which has always been the breeding site of the "Wideawake Tern" for which the island is famous.

These beautiful Terns have the peculiar habit of visiting the islands at 9.6 months intervals to breed. The local inhabitants cannot predict exactly when they will arrive, and I was lucky as the breeding season was in full swing. At this moment a rocket was sent up from the nearby American base, and the air around us suddenly became full of protesting birds which my host informed me were upwards of 30,000. They soon settled down and returned to nests and young.

The eggs are laid on the bare ground and no attempt made at making a nest. The whole area amongst the rocks was littered with eggs, young birds and broken shells. The "Wideawake Tern" is a spectacular fisherman, and for sheer courage and dash when fishing or protecting its eggs and young must have few equals. The parents would dive within inches of our heads when we approached a nest, but the fluffy little chicks were quite unconcerned and took a delight in pecking at our shoe laces. The adults appear to have two calls, one being a sort of chatty "Tick Tick", the other a high pitched rasping cry of anxiety, repeated again and again as the situation deteriorates. Thousands of young birds were walking about amongst the rocks, all looking the same to me, and it seems amazing how the parents find their own offspring when returning with food.

Next day I was invited to visit the farm on Green Mountain run by Cable and Wireless to produce meat and vegetables for the island population. The Manager, Mr Peter Critchley, is an old friend of mine, having taken him on leave during my service in the mail vessels. The farm is situated on the north side of the mountain at about 2,300 feet, about ten degrees cooler than at sea level, and reached by a series of very steep hairpin bends.

Coming from farming stock myself, it was interesting to look around this lovely farm with its lush vegetation and healthy animals. The herd of cattle is housed in what used to be the Marine Barracks, the date embossed in the building 1829. I was indeed surprised to find a modern milking plant in the middle of the South Atlantic perched on the side of a mountain. A number of pigs and fowls are also bred, and between 3,000 and 4,000 sheep graze on the slopes.

The very highest point of the mountain is surrounded by a grove of tall bamboo trees, planted and gathered to induce rainfall. Nestling in the centre of this plantation is a large concrete pond from which the overflow runs to the farm below. I imagine you

would fool most people if you told them that there were goldfish swimming around the top of Ascension Island, but there they were swimming amongst the water lilies!

The farmhouse overlooks about two-thirds of the island, ranging from lush green vegetation to the extinct volcano craters, and surrounded by the deep blue waters of the South Atlantic over 2,000 feet below. Just before bidding me farewell, my host mentioned that if ever I got the chance to see Boatswain Bird Island it should not be missed. In my next voyage this chance came my way when I was lucky enough to spend 4 days at Ascension Island.

H.M.S. *Puma* had arrived for a three-day courtesy visit and I was invited onboard for a reception. The Captain told me that he was sending his diving team to Boatswain Bird Island next day for "diving practice", and invited me to join the expedition and take some fishing gear. I was introduced to the Lieutenant in charge and all arrangements made for an early start next morning.

We got away for the 9 mile journey in a whaler and I was soon trolling a spinner. Soon I got my first strike, a 25 pound kingfish. Later, passing 2 miles offshore, we got frequent more strikes which involved stopping to gaff and boat the fish.

Boatswain Bird Island is situated off the south-east corner of Ascension Island, separated from the main island by a channel 300 yards wide and 60 feet deep. It is 323 feet high and measures about 400 yards long by 350 yards wide. As we approached the island its massive steep sides afforded a lee from the south-east trade-wind which blows continuously in this area. On the landward side there is a natural arch which slopes gradually to the sea, the only place where a hazardous landing can be attempted.

Stopping engines some 100 yards from this gigantic rock we were soon surrounded by numerous sharks and fish of all sizes and descriptions. The naval divers took one look over the side and decided that this was definitely not the place to practise diving. The Lieutenant in charge then announced that he had never caught a shark, so I baited a good sized hook, handed him the line, and choosing a hungry-looking shark lowered the bait down. He took it first time. This made his day and he insisted on hauling the shark aboard to show to his friends in *Puma*.

It was decided to allow 3 men to land if this was practicable, for there was a heavy swell and strong current running. Finally, while we fended off the boat with oars and boathooks, a Petty Officer jumped perilously ashore and attached a rope to a heavy wooden boom which extended some 20 feet out from the cliff. Two others climbed up the rope and we backed the boat off to safer water. Large red and blue coloured crabs were crawling along the rocks near the water eyeing us suspiciously.

Boatswain Bird Island is the home and breeding place of many thousands of sea birds including Tropic-birds, Boobies, the Ascension Frigate-bird and Terns. The Tropic-birds looked very handsome with their red or yellow bills, short webbed feet, and long

white streaming central tail feathers, the latter compared with a marlinespike by sailors, hence the name "Bosun-birds". Almost every hole in the eroded sides of the island contained a Bosun-bird sitting on a nest with its long tail sticking out and they were quite unconcerned with our presence. In fact the shore party picked one or two of them off their nests and replaced them with little objection from the birds.

Meantime the sight of thousands of these magnificent birds flying around the island is hard to convey. Tropic-birds have a curious quick jerky flight and the ability to stop dead in their tracks when sighting potential food, drop like a stone from 200 feet or more and level off inches above the water to investigate it.

During a brief interval when lunch was taken it became obvious that we were not to be allowed to eat alone. The boat soon became surrounded by birds and fish. Terns perched all round the gunwhale as though invited and Boobies swam alongside within feet of the boat, while dark Frigate-birds with their long pointed wings and forked tails circled just above our heads eagerly capturing any food that was offered. It all seemed most unreal.

I wished to catch a few new species of fish for my collection in the East London Museum in South Africa, and the remainder of the party joined in. Looking over the side into the crystal-clear water all one had to do was to select one's fish and catch it! – it was quite impossible to get one's bait to the bottom 60 feet below. The law under the sea that "dog eats dog" was more noticeable here than anywhere else that I have visited. I was lucky enough to catch two new species, one of which was a big black Trigger fish with fearsome looking teeth like a dog.

On our way back we passed close to a few of the Green Turtles which arrive every year to lay their eggs in the hot sandy beaches of Ascension Island. The problem of from whence they come and go is not yet finally solved although it is thought that they may journey all the way from Brazil, but now a large number of young turtles have been "tagged" and launched into the sea and their movements may emerge. Fortunately the turtles lay very large clutches of eggs for probably only about 2% of the babies survive such predators as Frigate-birds, Black fish and Groupers as the journey both across the beaches and into the sea is made.

It is good to know that the authorities on Ascension Island are so well aware of the need to conserve the wild life of all kinds on the island and are taking active steps to safeguard them.

I shall always be indebted to my hosts on the island and to H.M.S. *Puma* in particular for making a visit to Boatswain Bird Island possible. I have seen many wild places in many parts of the world, but perhaps nothing quite so wild and natural as the exotic seabirds on "Bosun Island".

I asked a Petty Officer in the boat how he had enjoyed the day. I am sure he couldn't have put it better when he replied, "This is why I joined the Navy and I wouldn't have missed it for fifty pounds!"

OCEAN WEATHER SHIP ANALYSIS

Introduction

In this issue of *Sea Swallow* the analysis of Ocean Weather Ship Seabird reports includes:

a) Analysis of reports received throughout the year 1972 from British Ocean Weather Ships.

b) A continuation of the above reports into 1973 and up to the beginning of September.

c) A backlog of 1970 reports that most regrettably were overlooked when compiling the originals. These should be read in conjunction with the figures appearing in *Sea Swallow* Vol. 22.

d) Figures from the Dutch Ocean Weather Ship *Cumulus*. These, it should be noted, are not overall daily observations, but are counts taken at "spot" times each day. C. I. Griffiths has kindly made these available, and I quote from his explanation of the figures obtained: "The *Cumulus* makes three counts at 1000, 1400 and 1800 GMT daily. I have taken the *highest* total of each species from the 3 counts each day, *e.g.* Fulmar – 25 at 1000, 50 at 1400, 30 at 1800. Given here as 50."

Corrigendum

Sea Swallow Vol. 22. 1971/72.
Ocean Weather Ships observations 1971; Seabird table A.
For Alfa October 28th to November 20th
Read Juliet October 28th to November 20th.
Page 21. Under T. D. Rogers cancel 'Alfa' and substitute 'Juliet'.
Apologies to T. D. Rogers.

Ocean Weather Station Network

It is apparent from this and previous issues of *Sea Swallow* that reports are not always available from every station throughout the year. The reasons for this are as follows: The North Atlantic network has nine stations – Alfa; Bravo; Charlie; Delta; Echo; India; Juliet; Kilo; and Mike. The United States Coast Guard occupy Bravo, Charlie, Delta and Echo. The other stations are shared:

Alfa	62°00′N 33°00′W	Norway, France, Netherlands, U.K.
India	59°00′N 19°00′W	U.K., Netherlands
Juliet	52°30′N 20°00′W	U.K., France, Netherlands
Kilo	45°00′N 16°00′W	France, Netherlands, U.K.
Mike	66°00′N 02°00′W	Norway, Netherlands.

It follows, therefore, that large gaps are inevitable in the British observations from each station. For instance no U.K. ship visited Ocean Weather Station Kilo during 1972.

The observers on the U.K. ships who have sent in detailed reports are:

R. C. Aran; R. Dyer; C. I. Griffiths; E. D. MacDonald; J. Mayes; D. Ogle; R. Philp; T. D. Rogers.

OCEAN WEATHER SHIP OBSERVATIONS SUMMARISED

The following notes and remarks have been extracted from the 1972 reports.

FULMAR PETRELS. On two widely separate occasions (29th May and 26th June) instances of abnormal growths were observed on blue phase birds at Station India. The first was seen as a bulge between the lower breast and vent; the second (the size of a large hen's egg) was on the lower neck, and was half covered when the bird rested on the water.

Notes on recognition. Birds in moult reported at Station Juliet in May, June and July. Some with pronounced gaps in wing feathers having difficulty in flight. Noticeable "flaky" body-moult in a few, and feathers seen on the water.

Notes on behaviour. Station India (T. D. Rogers) 23rd March to 16th April the Fulmars kept in flocks "much as Great Shearwaters do in Autumn". At the same place in August it was noted that Fulmars on the water "react strongly when Great Skua approaches by fanning out tail and half opening wings – often when Skua 20 to 30 yards away. Doesn't normally react to smaller Skuas unless food is threatened".

GREAT SHEARWATERS. One report from Station India noted that in a glassy calm (6 ft. swell) as the birds wheeled and turned in flight they frequently scored the surface with one wingtip – making a yard-long furrow on the surface. This appeared not to affect their flight in any way.

Notes on recognition. In May (Station India again) one bird was reported with "pale or 'frosty' wash on upperparts – a feature noted previously on several birds in autumn". The following month (June 24th, Station Juliet) three were noted with partial wing moult. One bird showed a white patch on the primaries and a white line along the secondaries ("as described by Wynne-Edwards"). Later on at the same station in October the belly patch was noticed to be absent on many birds, very well marked on some, and variable on others. A few paler birds (upperwings) may have been completing moult.

Notes on behaviour. Two observers on three separate occasions commented on the noise made by Great Shearwaters. "A thin wail, lasting about three seconds, made while in flight". That was at Station India in October. At the same time of year but further south (Juliet): "Very noisy on the water, a loud nasal mewing not unlike the sound of fighting cats! This noise occasionally (rarely) also in flight. Another flight call was sometimes heard, a Little Tern-like 'kewick' only much quieter and lower pitch". Earlier that year (September, Station Juliet) it was remarked that they were "usually very noisy, a horrible wailing when resting in rafts on the sea (*i.e.* not only when feeding)".

CORY'S SHEARWATER. Station Juliet; August and September. Exceptional numbers for this station. Positively none seen until 20th August. On 22nd a mixed raft of Cory's and Great Shearwaters drifted about ten yards ahead of the ship where Cory's were easily identified by their pale bills. In flight Cory's appear to have broader wings with less rigid wingbeats. Head usually looks dark in comparison with the white on the Great Shearwater (despite the black caps). Cory's are uniformly brown above; Great usually has darker primaries though this feature not always obvious if the light is not right. Most Cory's appeared to have a small amount of white at the base of the tail.

SOOTY SHEARWATERS. The appearance of Sooty Shearwaters twice coincided with the arrival of Pilot Whales; once at Juliet in June, and again at India in August. One report described Sooty Shearwaters diving amongst and chasing Fulmars. On another occasion, though, a Sooty Shearwater was itself under attack; " . . . attacked viciously by Great Shearwater who hit it with claws on back from above". The bird being attacked either dived or was forced under the surface.

MANX SHEARWATERS. These were also noticed in company with Pilot Whales. On 30th August 70 were observed at one stage following Pilot Whales to the SE (Station India).

BRITISH STORM-PETRELS. One report from Station India in May remarks that the diagnostic white patch on the underwing is often noticed at 100 yards plus. "Quite definitely 'walked on water' with wings held out though not so often nor protracted as Wilson's".

LEACH'S PETREL (deceased!). Those observed at Station Juliet in October formed the staple diet of one Merlin which was in attendance. On the 21st two were caught; on the 23rd two more (remains?) were found on deck having been caught that morning. Forked tail was clearly seen on the one in the Merlin's possession. On 24th October another Leach's Petrel was killed by the Merlin.

GANNET. An immature specimen was seen making shallow dives and causing Kittiwakes to rise up in alarm and Fulmars to adopt the "threat" pose (Station Juliet, October). Earlier, at the same station, one was observed with a length of string or rope trailing from its bill.

GREAT SKUA. As usual several instances were recorded of this species harrying other birds – Great Shearwaters being the most frequent victims.

ARCTIC SKUA. At Station India, in August, one was seen chasing a Long-tailed Skua. This allowed a close comparison to be made and clearly showed the larger size and broader wings of the former.

In October (Juliet) one was seen to be closely following a White-fronted Goose. But at Station India in May the usual roles were reversed; a dark phase bird was seen being mobbed by several Kittiwakes after it had attacked one of their number.

LONG-TAILED SKUA. Their high pitched "falcon-like" cry was twice commented upon; at Station India in May and again in August. On the second occasion the cries were made while chasing other birds and each other. At Station Juliet in September they were in company with Arctic Skuas; "Have never seen so many, (3 and 20) together in one group, at any of the stations." (E.D.M.)

IVORY GULL. Station Alfa: 8th, 9th, 10th, 11th March. One landed onboard for short periods: appeared tired. Attacked by Fulmars whenever it attempted to settle on the water – they kept diving on it. Not seen p.m. 11th, believed killed by Fulmars. (See Vol. 22 page 20; Fulmars attacking Common Tern.)

LESSER BLACK-BACKED GULLS. Two of this species were seen chasing a Pomarine Skua (Station India, May).

GREAT BLACK-BACKED GULLS. "Seen feeding at night – just as Kittiwakes do if the opportunity presents itself . . . " Station Juliet in February.

GLAUCOUS GULL. In heavy moult – Station India, May. The observer went on to comment on its size: markedly smaller than a Great Black-backed Gull, but appeared a little larger than the Lesser B.-b. Gull. The bill was large and longish, pink with a black tip.

KITTIWAKES. At Station India these birds were seen to be very excited when Dolphins and Pilot Whales were present – often dropping into the sea amongst them. The feeding habits of Kittiwakes provoked several comments. Whenever they obtained a fish, for instance, (which they frequently did at Station India in August) it was a signal for Skuas and Fulmars to harry them. A more exotic diet was recorded at Station Juliet when 200 birds went frantic over handfuls of grated cheese thrown overboard. The observer of this incident goes on to remark: "Much noisier than usual, groups often 'Kittiwaking' loudly!" Night feeding was noticed at Station India in November. This occurred before first light as the ship steamed ahead. The birds were seen dropping into the water two or three feet from the hull.

At Juliet in October a Kittiwake was seen bathing in, of all things, the yellow dye used for Air/Sea rescue. Another instance of individual behaviour was recorded at Station India in February when one Kittiwake was seen swimming around another while the latter frequently beat the water with its wings.

SABINE'S GULL. The nine birds seen at Station India on 25th May "all had black hoods, but were unmistakably Sabine's. Yellow tip to bill was visible in good light at some distance; forked tail. Hood seemed jet black at 50 yards even through binoculars." (This black hood has previously been noted by the same observer – C. I. Griffiths – see Vol. 22, page 25.)

TERNS SP. Station India, 14th August to 6th September. Counts were recorded on all but one of the days during this period; the greatest number (299) were seen on the 22nd. The majority flew past the ship in a south-westerly direction in ones, twos and groups of up to 35 birds at a time. On the 17th one group arrived and settled on the water to bathe and preen – twice rising to mob Great and Arctic Skuas.

LITTLE AUK. Two instances of oiled birds were reported from Station Juliet (March and April). One had to be force-fed after being captured – but to no avail; it died three days later.

GUILLEMOT. Brunnich's. The first recorded at Station Juliet – 9th July. Upperparts brownish-black (not black). Head not noticeably browner. Black throat (breeding plumage). Bill shorter than Guillemot but not thick and compact like Razorbill. White line clearly visible along length of bill near base. This bird appeared from the north at 1640 GMT, circled very close twice then disappeared to ESE. Seen within 50 yards and through 7 x 50 binoculars. Doubtless brought down in long-fetch WNW airstream from Kap Farval.

GREY PHALAROPE. Station Juliet in July. Probably the same bird seen on three successive days. "White face patch, pronounced white wing bar. Otherwise brick-red underparts and brownish upperwing. Underwing white. Size similar to Wilson's Petrel – with which it is frequently associated."

OCEAN WEATHER SHIPS – STATION REPORTS OF LANDBIRDS

Analysis by Cdr. M. B. Casement, R.N.

The following reports have been received during the period 1972-73 (up to 1 Sept. 73).

STATION ALPHA Position 62°00'N, 33°00'W

	O.W.S.	*Pages*	*Observer(s)*
1972			
5-9 March	Weather Reporter	1	R. B. Dyer, R. Philp, D. Ogle
1973			
27 Apr-9 May	Weather Surveyor	2	T. D. Rogers

STATION INDIA Position 59°00′N, 19°00′W

	O.W.S.	*Pages*	*Observer(s)*
1972			
23 Mar–16 April	Weather Surveyor	1	T. D. Rogers
13–31 May	Weather Monitor	3	C. I. Griffiths, E. MacDonald, J. Mayes
4–13 June	Weather Reporter	1	R. B. Dyer, R. Philp, D. Ogle
2–5 July	Weather Surveyor	1	T. D. Rogers
16 Aug–3 Sept	Weather Monitor	2	C. I. Griffiths, J. Mayes, A. W. G. John
14–27 Sept	Weather Reporter	1	R. B. Dyer, R. Philp, D. Ogle
1–19 Oct	Weather Surveyor	9	T. D. Rogers
20 Nov	Weather Monitor	1	C. I. Griffiths
1973			
8 April	Weather Reporter	1	R. B. Dyer, R. Philp, D. Ogle
28 May–12 June	Weather Surveyor	1	T. D. Rogers

STATION JULIET Position 52°30′N, 20°00′W

	O.W.S.	*Pages*	*Observer(s)*
1972			
20 Mar–12 April	Weather Monitor	1	C. I. Griffiths, J. Mayes
17–30 April	Weather Reporter	1	R. B. Dyer, R. Philp, D. Ogle
8 May–1 June	Weather Surveyor	1	T. D. Rogers
6 August	Weather Reporter	1	R. B. Dyer, R. Philp, D. Ogle
21 Aug–3 Sept	Weather Surveyor	1	T. D. Rogers
4–24 Sept	Weather Adviser	3	E. D. Macdonald
2–20 Oct	Weather Surveyor	10	C. I. Griffiths
11 Nov	Weather Reporter	1	R. B. Dyer, R. Philp, D. Ogle
24–25 Nov	Weather Surveyor	2	T. D. Rogers
1973			
11 March	Weather Surveyor	1	T. D. Rogers
16–28 April	Weather Monitor	2	C. I. Griffiths
15–24 May	Weather Reporter	2	R. B. Dyer, R. Philp, D. Ogle
1 August	Weather Surveyor	1	R. C. Aran

Details are shown in the following tables for all observations recorded on stations; records made on passage are included in the tables for sea passage reports.

Abbreviations used in the tables:

Wind force expressed in Beaufort scale, or in knots where shown

D – Died S – Settled onboard (duration)

X – Examined in the hand BM – Corpse sent to British Museum

Latin names are shown only for the first occasion in each table.

OCEAN WEATHER SHIP OBSERVATIONS - 1973 - SEABIRD TABLE A

To 1st October 1973

OCEAN STATION ALPHA
62°30′N, 33°00′W
300 miles W x S of Iceland

NUMBER OF DAYS	Feb 25 Mar 19 23 days	April 16 May 9 24 days
Fulmar Petrel	6555 (120b) avd 285	3828 (47b) avd 160
Great Shearwater	—	—
Cory's Shearwater	—	—
Sooty Shearwater	—	—
Manx Shearwater	—	—
Wilson's Storm-Petrel	—	—
British Storm-Petrel	—	—
Leach's Storm-Petrel	—	1
Gannet	1	7
Great Skua	1	17
Pomarine Skua	—	1
Arctic Skua	—	—
Long-tailed Skua	—	—
Ivory Gull	—	—
Common Gull	—	2
Herring Gull	—	4
L.B.B. Gull	1	13
G.B.B. Gull	23 (5i)	16
Glaucous Gull	53 (19i)	1 (i)
Iceland Gull	2	12 (i)
Kittiwake	1585 (124i) avd 69	2501 (1805i) avd 104
Sabine's Gull	—	—
Black-headed Gull	—	10
Terns Sp.	—	—
Little Auk	43	11
Guillemot Sp Razorbills	1911	64 (3G) 6 (Gb)
Puffin	—	7
Phalaropes Sp.	—	—

OCEAN STATION INDIA
59°00′N, 19°00′W
250 miles S of Iceland

NUMBER OF DAYS	Dec 12 ('72) Jan 4 24 days	Jan 7 Jan 27 21 days	Mar 19 April 9 22 days	May 27 June 21 26 days	Aug 9 Sept. 3 26 days
Fulmar Petrel	7335 avd 306	3170 (33b) avd 151	1405 avd 64	3825 (19b) avd 147	1647 (9b) avd 63
Great Shearwater	—	—	10	—	119
Cory's Shearwater	—	—	—	—	—
Sooty Shearwater	—	—	—	—	44
Manx Shearwater	—	—	—	4	2643
Wilson's Storm-Petrel	—	—	—	—	3
British Storm-Petrel	—	—	—	4	—
Leach's Storm-Petrel	—	—	—	—	—
Gannet	—	15	2	83 (66i)	31 (16i)
Great Skua	—	2	132	33	43
Pomarine Skua	—	—	—	7	6 (3i)
Arctic Skua	—	—	3	19 (2i)	21 (10i)
Long-tailed Skua	—	—	—	8	73 (46i)
Ivory Gull	1	—	—	—	—
Common Gull	—	—	—	—	2 (1i)
Herring Gull	4	—	—	3	—
L.B.B. Gull	167	—	10	90 (47i)	72 (36i)
G.B.B. Gull	56	46 (28i)	45	4 (i)	1 (i)
Glaucous Gull	—	—	—	—	—
Iceland Gull	—	—	—	—	—
Kittiwake	3684 avd 154	7657 (32i) avd 365	2535 avd 115	334 (252i) avd 13	707 (178i) avd 26
Sabine's Gull	—	—	—	—	3
Black-headed Gull	—	—	—	4 (3i)	3 (i)
Terns Sp.	—	—	—	24 (2A)	2107 (A)
Little Auk	—	2	—	—	—
Guillemot Sp Razorbills	—	—	—	43 (3R)	1 (R)
Puffin	—	—	—	9	6 (1i)
Phalaropes Sp.	—	—	—	—	18 (Gr 9)

OCEAN STATION JULIET
52°30′N, 20°00′W
360 miles W x S of Ireland

NUMBER OF DAYS	Jan 7 Jan 28 22 days	Jan 29 Feb 18 21 days	Feb 19 Mar 14 24 days	April 8 May 3 26 days	May 4 May 24 21 days	July 13 Aug 6 25 days
Fulmar Petrel	244 (4b) avd 11	1760 avd 84	17	4110 (4b) avd 158	27150 avd 1294	1415 avd 57
Great Shearwater	—	—	—	1	6	266
Cory's Shearwater	—	—	—	—	—	6
Sooty Shearwater	—	—	—	—	—	25
Manx Shearwater	—	—	1	180	3	—
Wilson's Storm-Petrel	—	—	—	—	—	—
British Storm-Petrel	—	—	—	—	1	1
Leach's Storm-Petrel	—	—	—	—	—	1
Gannet	2	4	3	78	194	18
Great Skua	11	15	25	62	164	6
Pomarine Skua	—	—	—	13	127	—
Arctic Skua	—	—	—	11	59	2
Long-tailed Skua	—	—	—	—	4	—
Ivory Gull	—	—	—	—	—	—
Common Gull	—	—	—	2 (i)	—	—
Herring Gull	2	2	—	8	11	—
L.B.B. Gull	—	137	2	111	887	2
G.B.B. Gull	89 (76i)	65	4 (2i)	4 (i)	386	—
Glaucous Gull	—	—	—	—	—	—
Iceland Gull	—	—	—	—	—	—
Kittiwake	22660 (700i) avd 1030	24850 avd 1184	1842 (167i) avd 77	7535 (4610i) avd 290	13600 avd 648	16
Sabine's Gull	—	—	—	—	—	—
Black-headed Gull	—	—	—	11	—	—
Terns Sp.	—	1 (A)	—	—	—	—
Little Auk	24	—	10	18	—	20 (1C)
Guillemot Sp Razorbills	—	—	—	—	1 (R)	—
Puffin	—	—	2	48	—	—
Phalaropes Sp.	—	—	—	—	—	—

KEY avd – Average Daily Count. i – Immature. b – Blue Phase (Fulmar). A – Arctic Tern. C – Common Tern. Gr – Grey Phalarope. R – Razorbill. G – Guillemot. Gb – Brunnich's Guillemot. Sp. – Species.

OCEAN WEATHER SHIP OBSERVATIONS - 1972 - SEABIRD TABLE A

OCEAN STATION ALPHA
62°30′N, 33°00′W
300 miles W x S of Iceland

NUMBER OF DAYS	Feb 22 Mar 17 25 days
Fulmar Petrel	3324 (400b) avd 133
Great Shearwater	—
Cory's Shearwater	—
Sooty Shearwater	—
Manx Shearwater	—
Wilson's Storm-Petrel	—
British Storm-Petrel	—
Leach's Storm-Petrel	—
Gannet	—
Great Skua	—
Pomarine Skua	—
Arctic Skua	—
Long-tailed Skua	—
Ivory Gull	4
Common Gull	—
Herring Gull	—
L.B.B. Gull	—
G.B.B. Gull	24
Glaucous Gull	99
Iceland Gull	92
Kittiwake	1335 avd 53
Sabine's Gull	—
Black-headed Gull	—
Terns Sp.	—
Little Auk	—
Guillemots Sp. Razorbills	—
Puffin	—
Grey Phalarope	—

OCEAN STATION INDIA
59°00′N, 19°00′W
250 miles S of Iceland

NUMBER OF DAYS	Feb 6 Feb 27 22 days	Mar 23 April 16 25 days	May 10 June 2 24 days	June 3 June 24 22 days	June 26 July 19 21 days	Aug 14 Sept 6 24 days	Sept 7 Sept 30 24 days	Oct 1 Oct 25 25 days	Nov 16 Dec 10 25 days
Fulmar Petrel	2970 (26b) avd 135	1693 (6b) avd 68	6110 (98b) avd 255	14700 avd 668	3367 (29b) avd 160	2135 (8b) avd 89	7600 avd 317	4416 (20b) avd 177	4450 (50b) avd 178
Great Shearwater	—	—	1	3	754 avd 36	8	36	2781 avd 111	1
Cory's Shearwater	—	—	—	—	—	—	—	—	—
Sooty Shearwater	—	—	2	—	31	41	3	32	—
Manx Shearwater	—	1	10	1	10	302	6	3	—
Wilson's Storm-Petrel	—	—	—	—	1	1	—	—	—
British Storm-Petrel	—	—	31	—	—	—	—	—	—
Leach's Storm-Petrel	—	1	—	—	—	1	1	1	—
Gannet	9	11	63	130	46	29	10	9	—
Great Skua	6	86	42	77	24	33	271 avd 11	39	1
Pomarine Skua	—	1	59 (34L)	8	9	7	4	21	—
Arctic Skua	—	—	23 (10L)	35	5	31 (11L)	8	—	—
Long-tailed Skua	—	—	25	—	11	148 (48i)	2	—	—
Ivory Gull	—	—	—	—	—	—	—	—	—
Common Gull	9 (4i)	—	1	2	—	7	5	1	—
Herring Gull	1	1	—	11	2	—	19	—	—
L.B.B. Gull	—	25	182 (4i)	1099 avd 50	33	66 (51i)	3	—	—
G.B.B. Gull	45 (13i)	11 (8i)	9 (i)	641 avd 29	4	3 (2i)	2	—	8 (6i)
Glaucous Gull	1	1	1 (i)	2	—	—	—	—	7 (3i)
Iceland Gull	—	—	—	—	—	—	—	—	4 (i)
Kittiwake	1750 (22i) avd 80	2348 (242i) avd 94	2223 (1836i) avd 93	5280 avd 240	45 (11i)	943 (221i) avd 39	1800 avd 75	802 (273 i)	375 (13i) avd 15
Sabine's Gull	—	—	14	—	—	6	—	—	—
Black-headed Gull	—	4	16	2	4	1	—	1	—
Terns Sp.	—	—	20 (2A)	6 (C) 4 (A)	—	976 avd 40*	3 (1S)	2	—
Little Auk	4	2	1	8	—	—	—	9	3
Guillemots Sp. Razorbills	2 (G)	4	17	57 (R) 16 (G) 1 (Gb)	3 (R) 6 (G) 6 (Gb)	1	—	3	1 Sp
Puffin	—	5	6	1	9	2	—	19	5
Grey Phalarope	—	—	—	—	—	2	—	—	—

OCEAN STATION JULIET
52°30′N, 20°00′W
360 miles W x S of Ireland

NUMBER OF DAYS	Jan 8 Jan 30 23 days	Jan 31 Feb 23 24 days	Mar 20 April 12 24 days	April 13 May 6 24 days	May 8 June 1 25 days	June 24 July 16 23 days	July 17 Aug 10 25 days	Aug 11 Sept 3 24 days	Sept 4 Sept 29 26 days	Sept 30 Oct 26 27 days	Nov 18 Dec 14 21 days
Fulmar Petrel	331 avd 14	128 avd 5	194 (3b) avd 8	3562 avd 148	1765 (5b) avd 71	1348 avd 59	5700 avd 228	317 avd 13	717 avd 28	1034 avd 38	1459 (16b) avd 69
Great Shearwater	—	—	—	—	27	5	655 avd 26	2821 avd 118	534 avd 21	1858 avd 69	1
Cory's Shearwater	—	—	—	—	—	—	—	203	—	—	—
Sooty Shearwater	—	—	—	—	15	18	28	53	14	10	2
Manx Shearwater	—	2	32	8	69	16	—	37	7	1	—
Wilson's Storm-Petrel	—	—	—	—	4	13	—	9	7	13	—
British Storm-Petrel	5	2	—	—	46	1	1	—	36	—	—
Leach's Storm-Petrel	—	—	—	—	—	—	—	—	1	28	—
Gannet	—	1	2	46	49 (7i)	32	189	17 (13i)	18	13	1 (i)
Great Skua	9	18	—	72	13	7	150	26	37	36	3
Pomarine Skua	—	—	1	8	44 (7i)	1	16	10	14 (10L)	18	1
Arctic Skua	—	—	2	—	8	7	—	33	61 (29L)	6	—
Long-tailed Skua	—	—	—	—	11	4	—	91	11 (9L)	—	—
Ivory Gull	—	—	—	—	—	—	—	—	—	—	—
Common Gull	—	2	—	1	2	—	—	4	1	1	1
Herring Gull	—	—	1	2	4	—	—	1	3	3 (2i)	—
L.B.B. Gull	53	—	4	95	44 (6i)	5	—	3	91 (89i)	—	—
G.B.B. Gull	43	138 (67i)	6	31	12 (10i)	1	91	1	—	10 (9i)	7 (i)
Glaucous Gull	—	1	—	—	—	—	—	—	—	—	1
Iceland Gull	—	—	—	—	3	—	—	—	—	—	—
Kittiwake	2540 avd 110	5890 (16i) avd 245	1921 (377i) avd 80	6555 (375i) avd 273	2359 (1943i) avd 94	2	2335 avd 93	45 (32i)	76 (59i)	287 (177i) avd 11	3325 avd 158
Sabine's Gull	—	—	—	—	6	—	—	3	—	—	—
Black-headed Gull	—	—	—	—	1	—	15	—	9	10	4 (3i)
Terns Sp.	—	—	—	1 (A)	40	29	2	116	18 (2L)	4 (A)	—
Little Auk	—	1	39	2	3	—	—	—	—	—	—
Guillemots Sp. Razorbills	—	1 (R)	—	—	1 (G) 1 (R)	3 (1Gb)	—	—	—	—	—
Puffin	—	—	6	—	4	1	—	—	—	—	2
Grey Phalarope	—	—	—	—	—	3	—	—	—	—	—

KEY avd – Average Daily Count. i – Immature. b – Blue Phase (Fulmar). Sp. – Species. A – Arctic Tern. C – Common Tern. S – Sandwich Tern. L – Little Tern. L – Light Phase (Skuas). G – Guillemot. Gb – Brunnich's Guillemot. R – Razorbill. * – See notes.

OCEAN WEATHER SHIP OBSERVATIONS - 1970 - SEABIRD TABLE A

(See Notes)

Unpublished Records

	OCEAN STATION ALPHA 62°30′N, 33°00′W 300 miles W x S of Iceland		OCEAN STATION INDIA 59°00′N, 19°00′W 250 miles S of Iceland		OCEAN STATION JULIET 52°30′N, 20°00′W 360 miles W x S of Ireland	
	Jan 3 Jan 14	Mar 28 April 19	Feb 14 Mar 8	April 3 April 26	Feb 12 Mar 6	May 24 June 16
NUMBER OF DAYS	12 days	20 days	23 days	24 days	23 days	24 days
Fulmar Petrel	424 avd 35	1675 (7b) avd 83	839 avd 36	495 (1b) avd 21	865 (5b) avd 38	11
Great Shearwater	—	—	—	—	—	—
Cory's Shearwater	—	—	—	—	—	1
Sooty Shearwater	—	—	—	—	—	—
Manx Shearwater	—	—	—	1	—	6
Wilson's Storm-Petrel	—	—	—	—	—	} 311
British Storm-Petrel	—	—	—	—	—	
Leach's Storm-Petrel	—	—	—	—	—	—
Gannet	—	3	23	9	1	5
Great Skua	—	7	2	63	4	9
Pomarine Skua	—	—	—	—	—	—
Arctic Skua	—	—	—	1	—	3
Long-tailed Skua	—	—	—	1	—	—
Herring Gull	—	2	6	9	—	3
L.B.B. Gull	—	4	1	103	—	12
G.B.B. Gull	7	21	65	41	29	7
Glaucous Gull	16	15	5	—	3	—
Iceland Gull	4	—	2	—	—	—
Kittiwake	88 avd 7	487 avd 24	601 avd 26	2855 avd 119	2240 avd 97	2
Sabine's Gull	—	—	—	—	—	—
Black-headed Gull	—	—	—	18	—	—
Terns Sp.	—	—	—	—	—	—
Little Auk	—	—	—	—	—	—
Guillemots Sp. Razorbills	—	2 (R)	—	1 (Gb)	—	—
Red-necked Phalarope	—	—	—	—	—	1

KEY avd – Average Daily Count. i – Immature. b – Blue Phase. R – Razorbill.
Gb – Brunnich's Guillemot. Sp. – Species.

O.W.S. OBSERVATIONS - 1972 - FROM DUTCH O.W.S. "CUMULUS"

(See Notes)

	OCEAN STATION ALPHA 62°30′N, 33°00′W 300 miles W x S of Iceland	OCEAN STATION INDIA 59°00′N, 19°00′W 250 miles S of Iceland
	April 16 May 12	Feb 28 Mar 22
NUMBER OF DAYS	27 days	22 days
Fulmar Petrel	1220 avd 45	368 avd 15
Great Shearwater	—	—
Cory's Shearwater	—	—
Sooty Shearwater	—	—
Manx Shearwater	—	—
Wilson's Storm-Petrel	—	—
British Storm-Petrel	—	—
Leach's Storm-Petrel	—	—
Gannet	11	3
Great Skua	3	4
Pomarine Skua	2	—
Arctic Skua	—	—
Long-tailed Skua	—	—
Herring Gull	—	—
L.B.B. Gull	42	—
G.B.B. Gull	7	6 (2i)
Glaucous Gull	4	2 (1i)
Iceland Gull	—	—
Kittiwake	643 avd 24	399 avd 17
Sabine's Gull	—	—
Black-headed Gull	1	—
Terns Sp.	—	—
Little Auk	2	1
Guillemots Sp. Razorbills	—	—
Red-necked Phalarope	—	—

KEY i – Immature
Important: See notes for explanation of these totals

OCEAN STATION ALPHA

1972

Date	*Time arr GMT*	*Species*	*Wind, weather, vis*	*Remarks*
Mar 5	1000	Snowy Owl (*Nyctea scandinca*)	W/6 snow showers 10nm	S 2 hrs dep NW
9	1100	Gyr Falcon (*Falco rusticolus*)	W/7 snow showers 5nm	5/hr dep NNW

1973

Apr 27	1323	Golden Plover (*Charadrius apricarius*)	080/11kt 15nm	Flew past heading W
29	0950	Snow Bunting (*Plectrophenax nivalis*)	160/6kt 15nm	Flew past
May 2	1200	Snow Bunting	220/12kt 15nm	Flew past
3	1428	Snow Bunting (F)	190/25kt 15nm	Flew past heading W
	1100	Lapland Bunting (M) (*C.lapponicus*)	140/6kt 15nm	S 24 hrs. Full breeding plumage
5	1447	Snow Bunting (F)	020/3kt 15nm	Heading W
6	1555	Wheatear	240/15kt 15nm	Heading NW
9	1515	Wheatear (M)	300/9kt	S 12 hrs. D X Wing 98mm

OCEAN STATION INDIA

1972

Date	*Time arr GMT*	*Species*	*Wind, weather, vis*	*Remarks*
Mar 23–31	Z	Nil		
Apr 7	1345	Oystercatcher (*Haematopus ostralegus*)	090/5kt 10nm	
10	1545	*Falcon Sp*	340/20kt 10nm	Small – about 14". Prob. Merlin
11	0700	Blackbird (F) (*Turdus merula*)	360/15kt 8nm	Circled ship close several times
1–6 and 12–16		Nil		
May 13	0930	Meadow Pipit (*Anthus pratensis*)	SE/5	
	1530	Wheatear (F) (*Oenanthe oenanthe*)	calm	S 24 hr
	1600	20 Whimbrel (*Numenius phaeopus*)	calm	Arr from SE. Flew past heading N
14	0700	Golden Plover (*Pluvialus apricaria*)	NW/4	Southern form. Breeding plumage
	0730	2 Wheatear (1M, 1F)	NW/4	S (for 36 hrs)

OCEAN STATION INDIA 1972 (*continued*)

Date	*Time arr GMT*	*Species*	*Wind, weather, vis*	*Remarks*
May 15	0600	White Wagtail (*Motacilla alba*)	SW/4	Breeding plumage. S 2 hrs
17	1855	3 Whimbrel	WSW/2	One S (10 mins). Dep NE
18	1920	White Wagtail	N/4	S 17 hrs
19	0800	2 Meadow Pipit	E/3	
23	1925	Oystercatcher	SE/4	Heard calling
	1935	Goose Sp	SE/4	Prob. Brent (*Branta berniela*)
25	1000	Duck Sp	calm	Prob. Scaup or Tufted. Flying W
26	0515	Dunlin (*Calidris alpina*)	E/5	Breeding plumage. S 27 hrs
	1320	Goose Sp	NE/4	Anser Sp?
28	1710	Whimbrel	NW/4	Circled for 20 mins
29	0800	Whimbrel	NNW/5	
June 4	2200	Red-Necked Phalarope (*Phalaropus lobatus*)	030/18kt 5nm	D 1 hr, attacked by Fulmars
5	1000	Redshank	060/17kt 10nm	Circled ship
	1200	Swallow (*Hirundo rustica*)	060/18kt 10nm	S. Exhausted D (4 hrs)
	1300	Wheatear	060/17kt 10nm	S 6 hrs. Departed N
6	1200	Dunlin		S 1 hr. Dep S
8	1500	Knot (*Calidris canutus*)	N/3kt 10nm	Exhausted. S 1 hr. Dep S
13	1500	Swallow	190/9kt 10nm	S 2 hrs
July 2	0500	Crossbill (*Laxia curvirostra*)	300/17kt 10nm	Adult male. Docile. Caged and fed. Released Lough Foyle 12 July
5	1120	Golden Plover (*C.a.altifrons*)	330/10kt 10nm	Circled 25 mins. Dep N
Aug 20	1850	7 Dunlin	W/5	Flew past heading S
23	0600	Meadow Pipit	SW/4	
27	1810	Wheatear (Imm. M)	SSE/4	S 24 hrs
29	1240	Purple Sandpiper (*Calidris maritima*)	SW/3	Circled. Breeding plumage
30	0801	Turnstone (*Arenaria interpres*)	W/5	Arr N, dep S
	1330	3 Turnstone	W/4	Flying past
Sept 3	1010	Whimbrel	calm	Calling
14	1400	Grey Heron (*Ardea cinerea*)	200/3 8/8St 200′ 1nm	Circled ship. Attacked by Skuas Dep W

Sept	17	1200	Phalarope Sp (*P. lobatus?*)	200/3 8/8 low St 1nm	
	23	1300	Wheatear	160/5 7/8St Cu 5nm	S 1 hr
	26	1200	Wheatear	240/4 5/8Cu 10nm	S 1 hr
		1400	Meadow Pipit	230/4 3/8Cu 10nm	S 1 hr
	27	1400	Starling	160/4 3/8St Cu 10nm	Circling ship
Oct	1	1757	Wheatear (M)	010/13kt 12nm	S few minutes
		0851	Wheatear	090/11kt 12nm	S few minutes
	2	1020	Lesser Whitethroat (*Sylvia curruca*)	090/12kt 12nm	S 2 hrs
		1015	Garden Warbler (*Sylvia borin*)	090/12kt 12nm	S 5 hrs
		1041–1535	6 Meadow Pipit	090/12kt 12nm	Ones and twos. Dep S but some NE
		1054	Wheatear	110/10kt 12nm	Flying E
		1215	Blackcap (*Sylvia atricapilla*) (M)	130/7kt 12nm	S 15 mins
		1240	Chiffchaff (*Phylloscopus collybita*)	140/7kt 5nm	Dark legs. S 25 mins. Dep NE
		1310–1442	1 (or 2) Lesser Whitethroat	140/7kt 12nm	Seen intermittently
	3	1555	Snow Bunting (*Plectrophenax nivalis*)	240/20kt 5nm	S. Dep E
	4	0800	Wheatear	220/30kt 0.5nm	S 8 hrs
		1600	Blackcap (M)	160/17kt 2nm	S few mins. Dep SE
		1625	Phalarope Sp	160/17kt 2nm	Calling "whit whit"
	6	1035	Blackcap (M)	170/1kt 2nm	S few mins.
		1305	Snow Bunting	070/6kt 5nm	
		1517	Garden Warbler	020/6kt 2nm	S 4 hrs
	7	0120	Wheatear (F, Imm)	080/14kt 1nm	V weak. D 8 hrs. Dissected
		0850	Wheatear	160/15kt 220 yds	S briefly
		2300	Meadow Pipit	160/6kt 100 yds	Heard calling in fog
	8	0727	35 approx. Purple Sandpiper	330/8kt 2nm	Flew past from NW to SE
		0724–1355	6+ Redwing (*Turdus iliacus*)	330/8kt 2nm	In ones and twos. From NW, dep E
		0729–1408	10 Meadow Pipit	330/8kt 2nm	Groups 1-5. Dep SE
		0830–1331	2 Golden Plover	330/8kt 2nm	Two singles. Arr N. Dep S
		0725–1314	8 Wheatear	330/8kt 2nm	Arr N. Dep SE. One D
		1536	Eider (*Somateria mollissima*) (M)	290/17kt 5nm	Circled. Eclipse plumage
		1537	Snow Bunting	290/17kt 5nm	
	9	0900	2 Wheatear	300/13kt 12nm	S 15 mins. Dep SE
		1329	Merlin (*Falco columbarius*) (Imm)	330/28kt 2nm	S 4 hrs. Dep SE but returned 2015. Caged and fed. Released on return Greenock

OCEAN STATION INDIA 1972 (*continued*)

Date	*Time arr GMT*	*Species*	*Wind, weather, vis*	*Remarks*
Oct 10	0950	Dunlin	360/16kt 5nm	Arr N. Dep. SE
	1310	Snipe (*Gallinago gallinago*)	020/13kt 12nm	Arr W. Dep. E
	1346	2 Duck Sp. Scaup or Tufted?	050/9kt 12nm	Arr N. Dep. S
	1409	Merlin (F, Imm)	050/9kt 12nm	S 7 mins. Dep. E
12	1120	Goose Sp (Anser Sp?)	260/28kt 12nm	Flying past N to S
	1530	Long-Tailed Duck (*Clangula hyemalis*) (F)	250/26kt 12nm	Circling and swimming 10 mins
16	0700	Wheatear	230/20kt 12nm	
	1430	Whinchat (*Saxicola rubetra*)		) Both found dead onboard
	1430	Blackcap		)
19	0715	2 Snipe	330/12kt 2nm	Flying past NW to SE
	0805	Redwing	330/11kt 5nm	S 4 hrs.
Nov 20	1300	Starling (*Sturnus vulgaris*)	calm	S 4 hrs.
		1973		
Apr 8	1100	Song Thrush	300/5 10nm	S 1 hr. Dep SE
May 28	1100	2 Whimbrel	030/19kt 3nm	Flew past heading SW
June 1	1306	3 Purple Sandpiper	200/25kt 3nm	Flew past
	1328	Whimbrel	200/25kt 3nm	Flew past heading NW
12	1247	5 Oystercatcher	020/21kt 6nm	Flew past heading SE

OCEAN STATION JULIET

1972

Date	*Time arr GMT*	*Species*	*Wind, weather, vis*	*Remarks*
20 Mar–12 Apr		Nil		Winds westerly quarter throughout
Apr 17	1100	Swallow (*Hirundo rustica*)	180/5 overcast 5nm	S 12 hrs. X

Apr 25	1100	2 Wheatear (*Oenanthe oenanthe*)	050/2 overcast 20nm	S 6 hrs. Exhausted. I D. X
	1130	Grasshopper Warbler (*Locustella naevia*)	050/2 overcast	S 9 hrs. Lively on arrival D. X
27	1100	Wheatear	310/3 20nm	S 1 hr.
30	1700	Yellow Hammer (*Emberiza citrinella*)	350/7 13nm	S 1 hr.
May 8	1717	Snow Bunting (*Plectrophenax nivalis*) (M)	260/11kt 10nm	S 2 days. Active
13	0740	Wheatear (M)	040/7kt 10nm	D 12 hrs. Small wing 97mm
June 1	0050	Phalarope Sp	328/13kt 10nm	Heard only; distinctive call
6	1400	Sanderling (*Crocethia alba*)	330/4 7/8St Cu 5nm	S 2 hrs. Arr NE. Dep. W
Aug 21	1625	28 Whimbrel (*Numenius phaeopus*)	170/kt 10nm	Flew past heading SE
23	1322	Turnstone (*Arenaria interpres*)	180/13kt	Circled once. Winter plumage
27	1450	2 Whimbrel	160/19kt 5nm	Dep. NW
Sept 4	0400	3 Wheatear (2F, 1M)	030/14kt	S all day
12	0800	Wheatear (F)	27nm	D. X. BM
13	0200	Wheatear	10nm	D. X. BM
14	1900	Knot (*Calidris canutus*)	090/11kt 5nm	S. Fed raw meat. Tame
15	1200	Purple Sandpiper (*Calidris maritima*)	180/10kt 10nm	S 17 hrs. Shy
17	1200	Greenshank (*Tringa nebularia*)	230/5kt 10nm	S 4 hrs. Tired
24	0900	Wheatear (M)	160/15kt overcast 2nm	S all day
	1600	Redstart (*Phoenicurus phoenicurus*)	140 17kt overcast 1nm	S. V. tired
25	0800	Goldcrest (*Regulus regulus*)	130/25kt overcast 2nm	S. 8/8 cloud at 700 ft.
27	1100	Wheatear (M)	180/6kt 5nm	S all day
28	2300	7+ Wheatear	310/18kt 5nm	8/8 cloud at 600 ft. S
Oct 2	0935	Duck Sp Teal?	N/5	Flew past heading S
	1345	Whitethroat (*Sylvia communis*)	N/4	S half hour
	2000	Wheatear (F) (*O.o.leucorrhoa*)	NNE/4	S. Took food. D 2 days. Wing 99.5 mm
	2150	3 Meadow Pipit (*Anthus pratensis*)	NE/3	All died 4th
3	1650	Song Thrush (*Turdus philomelos*)	Calm	Circled
4	1130	Red-breasted Flycatcher (*Ficedula parva*)	ESE/3	S 36 hrs.
	1300	2 Song Thrush (*T.p.hebridensis*)	ESE/2	S. V. dark above. Spots well marked
		Redstart (1mm)	ESE/2	

OCEAN STATION JULIET 1972 (*continued*)

Date	*Time arr GMT*	*Species*	*Wind, weather, vis*	*Remarks*
Oct 4	1400	Chiffchaff (*Phylloscopus collybita*)	ESE/2	S. Legs black
6	0800	Chaffinch (*Fringilla coelebs*) (F)	ENE/3	S 3 days
		2 Song Thrush		S all day. Lighter than on 4th
		Whitethroat		S 1 day
		2 Spotted Flycatcher (*Muscicapa striata*)		S 1 day
	0800	Black Redstart (*Phoenicurus ochruros*) (F)		S. X. D. BM
		2 Redstart (1M, 1F)		
	0830	Jacksnipe (*Lymnocryptes minima*)	E/3	D 2 days. X. BM
	0915	Robin (*Erithacus rubecula*)	E/3	S 2 hrs.
	0920	Tree Pipit (*Anthus trivialis*)	E/3	In sea. D. X. BM
	0945	Chiffchaff		
	1050	Redpoll (*Acanthis flammea*)	ESE/3	S briefly
	1115	Nightingale (*Luscinia megarhynchos*)	ESE/3	S. X. Released 1700
	1330	Swallow	ESE/3	
	1630	Wheatear	ESE/3	S. Killed by Kestrel on 7th
7	0700	Starling (*Sturnus vulgaris*)	E/3	S 2 days. Fed seed and bread
	0700	Whinchat (*Saxicola rubetra*) (F)		D. X. BM
	0800	Kestrel (*Falco tinnunculus*) (F)	E/4	S. 28 hrs. Caught Wheatear. De Ed
	0850	House Martin (*Delichon urbica*)		S 3 hrs.
	1630	Swallow	ESE/2	S 12 hrs.
	1650	Skylark (*Alauda arvensis*)		Flew past W to E
	1830	House Martin		Found dead 14th. X
	2200	Whinchat		Prob. female. Gone by dawn
8	0700	2 Wheatear	NE/3 freshening	Prob. *O.o.oenanthe*
	1700	Oystercatcher (*Haematopus ostralegus*)	NW/5	Flew past N to SW
11	1430	Merlin (*Falco columbarius*) (F)	ESE/3	S 1 hr.
	1650	Meadow Pipit	ESE/3	S
12	0645	Skylark	SW/4	S
13	0800	Snow Bunting	N/4	Imm. male?

Oct	14	0790	Grey Wagtail (*Motacilla cinerea*)	NE/4	S briefly
		0900	Song Thrush		S. D 15th. X
		1230	*phylloscopus* Warbler		Prob. Chiffchaff
		1333	Purple Sandpiper		
		1710	Marsh Warbler (*Acrocephalus palustris*)	NE/4	D 15th. X. BM
	15	1200	Garden Warbler (*Sylvia horin*)	E/4	S 1 day
		1350	2 Redwing (*Turdus iliacus*)	ENE/4	Circling and calling
		1545	Blackcap (*Sylvia atricapilla*) (M)	ENE/3	S 6 hrs.
		1700	Redstart (M)	ENE/3	S 30 mins.
		1745	12+ Redwing	E/3	Several heard and seen
		2245	Song Thrush	E/3	S 1 day
		2320	Skylark		S 12 hrs.
	16	0300	17+ Chaffinch	E/3	3M 14+F. S several days 2 caught Merlin 19th
		0800	Blackcap (F)	ESE/3	S 36 hrs.
			Garden Warbler		S 36 hrs. Weak. Prob. D
		1100	Dunlin (*Calidris alpina*)		S. Winter plumage. Attacked by Kestrel
		1410	Starling	E/3	Killed Kestrel 17th
		1530	Song Thrush		S. Last seen 21st. Prob. Merlin
		1545	Chiffchaff		S. D on 17th. X
		1615	Robin (*Erithacus rubecula*)	E/3	S. D 17th. X
		1700	3 Skylark		S. One killed Kestrel 17th
	17	0815	Kestrel (F)	ENE/3	S. Ate Skylark, Starling and also one prob. Dunlin
		1015	3 Blackcap (F)	E/3	At least 1 killed Merlin
	18	1300	Merlin (*Falco columbarius*) (F)	E/4	S until 25th. Feeding on migrants and also Leach's Petrel
		1700–2359	7 Starling	E/4	S. Arrived gradually
	19	0800–2000	6 Redwing	ENE/4	S. Several Merlin victims
		1200	2 Starling	ENE/4	
		0945	Common Pochard (*Aythya ferina*) (M)		In water. Full plumage
		1000	Jack Snipe (*Lymnocryptes minima*)		Circled once or twice
		1005	6 Geese Sp (Anser Sp?)		

OCEAN STATION JULIET 1972 (*continued*)

Date	*Time arr GMT*	*Species*	*Wind, weather, vis*	*Remarks*
Oct 19	1030	Meadow Pipit		S. Prob. Merlin victim
	1235	White-fronted Goose (*Anser albifrons*)		Circled. Pursued by Arctic prob. Greenland race
	0800–1200	5 Starling		Arr. ones and twos. S. One Merlin victim
Nov 11	1100	Starling	160/4 3/8St Cu 5nm	S 1 hr. X
24	1350	Starling	170/15kt 10nm	S
	1420	Purple Sandpiper	170/15kt 10nm	Flew past heading W
	1625	Starling	180/19kt 10nm	S few mins. Dep. NE
	1715	Grebe Sp. Prob. Little Grebe	180/21kt 10nm	Swimming alongside ship 10 mins.
	2155	Starling	180/20kt 10nm	Rescued from sea. Caged. Escaped 26th
25	1600	Starling	180/24kt 10nm	Circled for 45 mins.

1973

Mar 11	1250	Wheatear (M)	140/27kt	Breeding plumage
	1310	Skylark		S several hours
	1320	Swallow (F)		S. D. X
Apr 16	1920	Wheatear	SSE/2	S. D. X. BM. Prob. M. *leucorrhoa*
17	1430–2030	3 Swallow	SE/4	Arr. singly all D. X. BM
19	0550	Common Sandpiper (*Tringa hypoleucos*)	SE/3	S 4 hrs.
	0645	Hobby (*Falco subbuteo*)		S 3 hrs.
	0930	Meadow Pipit	ESE/3	5½ hrs.
24	2300	Meadow Pipit	ENE/5	S. D 25th
25	1530	Golden Plover (*P.a.altifrons*)	NE/6	Circled 10 mins. Breeding plumage
27	0800	3 Golden Plover (*P.a.altifrons*)	NE/4	One S. D. X. BM
28	1915	Pink-footed Goose (*Anser brachyrhynchus*)	NNE/4	Landed close on water for 35 mins. Mobbed by all seabirds

LANDBIRDS RECORDED AT SEA

By Commander M. B. Casement, R.N.

It is not normal for birds on migration over the sea to be seen by observers in ships out of sight of land. The sea is a hostile environment for a bird, to be crossed by the quickest means and the vast majority do so beyond visual range at a height of 5,000 ft. or more, and during darkness. Most small birds eat and rest by day and take off for migration as darkness falls, to cross the water on a broad front. A close watch on radar of the coast line "downstream" of such migration will show a mass of echoes leaving at 40-50 minutes after sunset. There are well known exceptions to this general rule and large soaring birds, such as Hawks, Eagles, Buzzards, Storks and Cranes are notoriously weak fliers in the absence of thermals and concentrate to cross by the shortest routes. This accounts for the spectacular migrations of such species across the Mediterranean by the Straits of Gibraltar and the Bosphorus. Of smaller birds, "Hirundines" (Swallows and Martins) and also Larks and Pipits are regularly seen flying in small groups by day and low over the water in the Mediterranean and elsewhere, but they are not typical of the vast majority of species.

The birds recorded by R.N.B.W.S. members are therefore "drop outs" from the teeming numbers high overhead – those which are exhausted by headwinds, or carried far off course by strong cross-winds. When the stars are obscured by overcast skies birds are unable to navigate, become disorientated and descend to find other reference points. It is when all these factors are operating together that the most spectacular falls of birds are recorded on ships. In order to understand the significance of these observations, it is therefore necessary to note the factors which may have caused the birds to behave in this way. Such factors include the amount of cloud cover (above about 3,000 ft.), visibility, wind strength and direction, and the distance from land (especially distance from the birds' departure point).

An attempt has been made in the following tables to show these factors as recorded on the Report Forms and thus deduce a pattern, if any, from the results. It can be seen, for example, that the spectacular fall of birds at Station Juliet during October 1972 can be directly attributed to a long period of easterly winds, which drifted the birds far out into the Atlantic. Most species arrived with 8/8 cloud cover. Of these Jack Snipe, Nightingale, Whinchat, Tree Pipit, Robin and Song Thrush have not been recorded at Juliet before.

On the other hand it can be deduced from Table D, that in April 1973 there was a steady passage between the Faeroes and Iceland of such species as Redwing, Greylag Geese, Redshank and Oystercatcher. These were not "drop outs", and were migrating by day.

Ships at sea are in a unique position to provide the vital information to help explain the remaining mysteries of bird migration which is obtainable by no other means. Positive identification can be made of species involved in movements observed on radar, and an idea gained of the mortality of birds at sea when caught in unfavourable wind and weather conditions. It will take many years of meticulous reporting to unravel the pattern of migration in some areas, and I rate the sea area off the coast of the bulge of Africa (Table C) as one of special significance for a full understanding of the bird movements of Western Europe. What happens to the birds which overshoot the coast of Spain and Portugal? To what extent is there a movement from Iceland to West Africa direct? Over the years maybe R.N.B.W.S. will be able to find out.

To those observers who have sent in records during this year I say thank you and well done. Your results have been studied with interest and will prove increasingly valuable in the long term. To those who did not, I hope this analysis will give encouragement to participate more actively next year.

SEA REPORT SHEETS

Analysis by Commander M. B. Casement, R.N.

The following reports of Landbirds at sea were received during 1972/73 up to the period ending 1 September 1973.

1971

(1) *Observer/Ship*	(2) *Passage*	(3) *Date*	(4) *Reference*	(5) *Sea Areas*
1. Capt. T. W. Barnett (M.V. 'Purnea')	Rotterdam–Red Sea	14 Jan–28 Feb	A	E. Atlantic (W. Africa), Indian Ocean, Red Sea
2. Mr M. Strickland (M.V. 'Sugar Exporter')	London–Laurenco Marques and return	13 Sept–28 Feb	B	Biscay, Iberlant, W. Africa

1972

1. Capt. P. W. G. Chilman (S.S. 'Helima')	Scandinavian Ports	5 Apr–18 May	A	Norwegian Sea, Skagerrak, Baltic. N. Sea, English Channel
2. Capt. P. W. G. Chilman (M.S. 'Donax')	Algeria–Sweden–Libya –UK	3–28 Aug	B	Med., Biscay, N. Sea
	Liverpool–Persian Gulf	5 Sept–15 Oct	C	Biscay, Iberia, W. Africa, Indian Ocean
	Geelong to Persian Gulf	12 Nov–9 Dec	D	Indian Ocean, Persian Gulf
3. Cdr. M. C. Powys Maurice, R.N. (H.M.S. 'Lowestoft')	Gibraltar to St. Helena	28 Mar–2 Apr	E	Atlantic (W. Africa)
	St. H. to Simonstown		—	Nil Report
	Beira Patrol	2 May	F	Indian Ocean
	Maldives to Dubai	21–26 Aug	G	Arabian Sea/Persian Gulf
	Simonstown to Gib.	29–31 Oct	H	Atlantic (W. Africa)
4. Lt. M. K. Barritt, R.N. (H.M.S. 'Arethusa')	Portsmouth to Gib.	24 Oct	I	Biscay
	Gib. to Malta	27 Nov	J	Med.
5. Capt. J. W. Waldie, M.N. (M.V. 'Pacific Bridge')	Japan to W. Australia	8 Oct–23 Oct	K	N. Pacific (W.)
	Capetown to Toronto			E. Atlantic (W. Africa)
6. Capt. K. Salwegter (S.S. 'Hollands Brink')	W. Australia to Japan	24 Sept	L	S. China Sea
		27 Oct		N. Pacific (W.)

SEA REPORT SHEETS (*continued*)

1973

(1) *Observer/Ship*	(2) *Passage*	(3) *Date*	(4) *Reference*	(5) *Sea Areas*
1. Capt. P. W. G. Chilman (S.S. 'Mytilus')	Persian Gulf to Rotterdam	28–30 Apr	A	Iberlant. Biscay
	Rotterdam to Forcados and return to Gothenburg	7–31 May	B	Iberlant. E. Atlantic (W. Africa), N. Sea
2. Mrs K. R. Stobbs (S.S. 'Relume')	Coastal Waters Gulf of Oman	7–18 Apr	C	Persian Gulf
3. Capt. K. Salwegter (M.V. 'Putten')	Alexandria to New Orleans	28 Mar–14 Apr	D	Med., Atlantic (W.)
	Houston to Alexandria	15 May–16 June	E	Gulf of Mexico, Med.
	Alexandria to Corpus Christi	2–18 July	F	Med.
4. A.B. I. G. Hall, M.N. (R.F.A. 'Regent')	U.K. to Capetown	20 June	G	Atlantic (W. Africa)
5. D. H. Mobberley (M.V. 'Mountpark')	W. Australia to U.S.A. (W. Coast)	25 April	H	N. Pacific
	Kobe to Longbeach	12–14 June	I	N. Pacific
6. A.B. W. T. Jones, M.N. (M.V. 'Furness Bridge')	Belfast to Persian Gulf	27 Feb–5 Mar	J	Atlantic (W. Africa)
	Persian Gulf to U.K.	17 Apr–10 May	K	Indian Ocean, S. Atlantic
	U.K. to Persian Gulf and return	15 May–14 June	L	Atlantic (W. Africa), Biscay, Iberlant
7. Lt. M. K. Barritt, R.N. (H.M.S. 'Arethusa')	Iceland Patrol	12 April–3 May	M	N. Atlantic
8. Capt. J. W. Waldie, M.N. (M.V. 'Pacific Bridge')	Lisbon to Brazil	29 Mar	N	E. Atlantic

Notes: 1 The reference letter shown in column 4 is used for brevity and ease of cross-referencing into the analysis tables for the relevant year and sea area. Example: 1972. Lt. M. K. Barritt, R.N. Portsmouth to Gib., 24th Oct., see Table A.I. Gib. to Malta, 27th Nov., see Table G. J.

2 The dates and sea areas shown (columns 3 and 5) are relevant only to significant landbird observations recorded.

ANALYSIS BY SEA AREAS

This analysis includes records received from the following sources:

a) R.N.B.W.S. Sea Report sheets (Landbirds) – (Showing reference letters)
b) Meteorological Log Returns (positive identifications only) – (indicated by MET)
c) OWS reports on passage – (indicated by "OWS" followed by initial of observer)

The observations are analysed in the following tables of sea areas:

Table A E. Atlantic (Biscay)
B E. Atlantic (Iberlant) – C. Finisterre to Gibraltar
C E. Atlantic (W. Africa) – Gibraltar to Cape of Good Hope
D N. Atlantic (North of 51°N)
E West Atlantic (West of 30°W and including Gulf of Mexico)
F Norwegian Sea, North Sea, Baltic and English Channel
G Mediterranean
H Indian Ocean, Red Sea, Persian Gulf
I Pacific

TABLE A

EAST ATLANTIC (BISCAY)

1971

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
13 Sept (1200)	B	*Flava* Wagtails (*M. flava*)	46°11′N, 07°26′W (SW Ushant 280′)	S few mins. NNE/10kt
27 Oct (0070)	B	1 Redwing (*Turdus iliacus*)	off Ushant	S. D. Wind NE/8kt
		7 Starling (*Sturnus vulgaris*)		S
		1 Goldcrest (*R.regulus*)		S. Caught and released

ANALYSIS BY SEA AREAS—TABLE A (*continued*)

1972

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
13 Aug (1600–1800)	B	3 Whitethroat (*Sylvia communis*) (1M, 2F)	45°35′N, 07°39′W (210° Ushant 240′)	S. NW/3. Cloudy
26 Aug (0900)	B	Turtle Dove (*S.turtur*)	46°49′N, 06°35′W (210° Ushant 140′)	S 4 hrs.+ Wind S/2. Overcast
5 Sept (1130)	C	Kestrel (*F.tinnunculus*)		S until dusk
		Whinchat (*Saxicola rubetra*)		S. Wind ENE/5 bc
		Common Sandpiper (*Tringa hypoleucos*)		S. Arr. NE
21 Oct	MET (*see note*)	Turtle Dove	44°01′N, 08°58′W (N. Cape Finisterre 50′)	S. Broken wing. Dep. 90′ off coast Senegal
24 Oct	I	Swift (*Apus apus*)	47°20′N, 07°20′W	Wind SE/3
		Great Tit (*Parus major*)	(205° Ushant 120′)	Arr. NW. Dep. SE

1973

29 April (1625-1745)	A	House Martin (*Delichon urbica*)	43°53′N, 09°39′W	S. Wind S/4. Overcast
		Swallow (*H.rustica*)	(NW C. Finisterre 60′)	S
30 April (1130)	A	Turtle Dove	47°32′N, 06°05′W	S. Wind S/7. Overcast
		Moorhen (*Gallinula chloropus*)	(SW Ushant 100′)	S. Rain
		Curlew (*Numenius arquata*)	47°54′N, 05°46′W (SW Ushant 50′)	Circling ship. Wind S/7. Overcast. Rain
10 May	K	Whimbrel (*Numenius phaeopus*)	45°26′N, 08°44′W (N C. Ortegal 120′)	S. V. weak. Arr. NE. Dep. 4′S of Scillies. Wind N/4

Note: Met Log report from M.V. 'City of Liverpool':
This Turtle Dove hit the rigging and broke its left wing and was tended and fed patiently by the Captain (Capt. J. I. Owen – Ellerman Lines Ltd.). The left wing was "set" slightly crooked and it became quite fearless of crew and passengers, spent most of the time pottering in the Captain's quarters. The bird took passage round the Cape to Beira and back until off Dakar 17°45′N, 17°45′W when it suddenly became animated and flew off strongly, her left wing held somewhat higher than right, making a bee-line for the shore.

TABLE B

EAST ATLANTIC – (IBERLANT) (FINISTERRE TO GIBRALTAR)

1971

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
14 Sept (1115)	B	Turtle Dove (*S.turtur*) Blue Throat (*Cyanosylvia svecica*)? (F or Imm?)	41°13′N, 10°39′W (W Oporto 100′)	S all day. Wind NNE/8
15 Sept (1515)	B	Wheatear (*O.oenanthe*)	35°37′N, 13°50′W (250° C. St. Vincent 280′)	S 10 mins. Dep. S
25 Oct	B	2 Starling (*Sturnus vulgaris*)	39°30′N, 16°30′W (280° Lisbon 340′)	S

1972

24 Aug	C	Hoopoe (*Upupa epops*) Turtle Dove	36°28′N, 07°30′W (SW Cadiz 50′)	Arr. SE. Dep. NW. S. Wind SSW/2 bc
25 Aug	C	Kestrel (*F.tinnunculus*) (F)	41°32′N, 09°32′W (290° Oporto 40′)	S 3 hrs. Wind SE/2. Overcast
6 Sept (1615-1800)	C	10 Turtle Dove	39°32′N, 11°03′W (W Portugal 80′)	Arr. N. Dep. SSE. Singles + one pr. Wind var. 1 bc

1973

2 April (0915-1100)	D	White Wagtail (*m.a.alba*) (M) Hoopoe Robin	36°28′N, 09°24′W (SW St. Vincent 35′)	Wind E/3. Good vis. Flew past
28 April (1740)	A	House Martin (*Delichon urbica*)	38°02′N, 12°06′W (260° Portugal 170′)	S. Arr. from S. Wind WSW/4. Cloudy
7 May (1515)	B	2 Curlew (*Numenius arquata*)	41°08′N, 10°57′W (W Oporto 130′)	Arr. SE. S 1 hr.
8 May (1300-1400)	B	3 Turtle Dove (2 + 1)	35°32′N, 13°00′W (240° C. St. Vincent 250′)	Arr. S. Dep. N. Wind NNE/6 bc
15 May	L	6 Swallows (*H.rustica*) 10 House Martins	39°33′N, 11°25′W (W Portugal 80′)	Poor vis. Arr. early a.m. S. Dep. NNE p.m. Wind NE/6

TABLE C

EAST ATLANTIC (WEST AFRICA) – GIBRALTAR TO CAPE OF GOOD HOPE

1971

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
14 Jan (1900)	A	Hoopoe (*Upupa epops*)	12°00′N, 17°50′W (W Guinea 70′)	Circled several times
17 Sept. (0730)	B	Turnstone (*Arenaria interpres*)	25°N, 16°W (W Africa 60′)	S. 160′ S of Canary Is.
		Whinchat (*Saxicola rubetra*) (F)		D
18 Sept.	B	3 Turtle Doves	18°41′N, 18°30′W (W Senegal 110′)	Circling ship
(1739)		Roller (*Coracias garrulus*)	17°00′N, 18°30′W (W Senegal 110′)	
19 Sept (1100)	B	2 Turtle Doves	12°58′N, 18°14′W (W Bathurst 80′)	
18 Oct (1930)	B	Turtle Dove	05°00′N, 16°04′W (SW Freetown 270′)	
20 Oct, p.m.	B	Redstart (*P.phoenicurus*) (M)	13°20′N, 18°40′W	Overcast. Wind N/5kt
		Wheatear (*O.o.enanthe*) (M)	(W Mauretania 90′)	
		Flava Wagtail (*M. flava*)		

1972

28 Mar (1815)	E	Grasshopper Warbler (*Locustella naevia*)	35°20′N, 07°40′W (NW Morocco 90′)	S 1 hr. +
2 April (1015)	E	Godwit Sp (*Limosa Sp*)	13°30′N, 17°18′W (NW Bathurst 45′)	Flying W to E
9 Sept (0915)	C	Turtle Dove (Imm)	21°46′N, 17°53′W	S. No neck marks
		Hoopoe (*Upupa epops*)	(W Africa coast 50′)	S. NNE/5 bc

(1115)		2 Turtle Dove	21°14′N, 18°06′W	S. Wind NNE/5 bc
		Nightingale (*Luscinia megarhynchos*)	(W coast Blanco 45′)	S 6 hrs. +
(1615)		3 Turtle Dove (1mm)	19°41′N, 18°11′W	S. 2 prob. same as a.m.
		Warbler Sp (*Hyppolais polyglotta*?)	(W Africa coast 80′)	S. Yellow eyebrow, black eye-stripe
10 Sept	C	2 Roller (*Coracias garrulus*)	14°50′N, 18°04′W	S. Arr. N. Dep. SE. 1mm
(0900-1020)		18 Turtle Dove	(W Dakar 35′)	S. Arr. N. Wind N/4 bc
		(1 Finch Sp and 1 unidentified passerine also seen)		
(1650-1850)		14 Turtle Dove	13°00′N, 18°04′W	S. Prob. as a.m.
		1 (or 2) Nightingale	(W Bathurst 70′)	S. Maybe from 9th
		Swift (*Apus Sp*)		Arr. N. Dep. S. Wind NNW/3 bc
		1 Warbler Sp (*Sedge? A. schoenobaenus*?)		
11 Sept	C	6+ Turtle Dove	07°41′N, 15°27′W	
(1620-1800)			(SW Freetown 140′)	
23 Oct	K	Cattle Egret (*Ardeola ibis*)	00°09′N, 10°25′W	Circled twice. Dep. N. Weather
(0930)			(SSW coast Liberia 250′)	fine. Wind SSE/4. Good vis.
30 Oct	H	2 Redstart (F)	14°30′N, 18°05′W	Wind NNE/10kt. 5nm
(1330-1630)		*flava* Wagtail (*M. flava*)	(SW Dakar 60′)	Unidentified Finch, Dove. Warbler and Pipit also seen. Prob. African passerines
31 Oct	H	Kestrel (*F.tinnunculus*)	19°35′N, 17°50′W	Arr. NW. Dep. SE
(1400)		(M)	(100° Africa 70′)	
		(Prob. local race Canaries/C. Verde)		Wind 030/14kt

1973

3 Mar	J	Swallow (*H.rustica*)	29°55′N, 15°14′W	Arr. NW. Wind ENE/5-6. Sand
			(NE Canaries 100′)	haze from mainland
4 Mar	J	2 Stone Curlew (*Burhinus oedicnemus*)	24°00′N, 17°06′W	Arr. NE. S one until p.m. 5th.
			(NW Mauretania 70′)	Wind NW/2. Sand haze
5 Mar	J	Quail (*C.coturnix*)	17°28′N, 18°13′W	S. D. Sand haze
			(290° Senegal 110′)	
28 Mar	N	House Martin (*Delichon urbica*)	22°15′N, 19°21′W	S 4 hrs. N/5
			(W Mauretania 150′)	

ANALYSIS BY SEA AREAS—TABLE C 1973 (*continued*)

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
28 April (1000)	K	Turtle Dove	15°00′S, 01°10′E (W coast of Angola 800′ E St. Helena 350′)	S 7 days. Wind SE/3. Fed but getting weaker until blown into sea 7°55′N, 15°55′W
8 May (1625-1800)	B	Golden Oreole (*Oriolus oriolus*)	34°30′N, 13°17′W (NW Morocco 260′)	S. Female or Imm M. Wind NNE/6
		Curlew (*Numenius arquata*)		S until 9th
		Pied Flycatcher (*Ficedula hypoleuca*) (F)		S
		9+ Whitethroat (*Sylvia communis*)		S, several until 9th
		Blackcap (*Sylvia atricapilla*) (F)		S
		2 or 3 House Martin (*Delichon urbica*)		S
9 May (0900)	B	Swallow	30°23′N, 14°41′W (N Canaries 100′)	S. D. X. Wind NE/6 be
(1620-1800)		Turtle Dove	28°15′N, 15°18′W	S. Wind NW/5
		2 House Martin	(off Canaries)	S
		2 Curlew		S. One prob. from 8th
10 May (1610-1800)	B	Rockthrush (*Monticola saxatilis*) (M)	21°58′N, 17°50′W (W Senegal 50′)	S. Wind NW/5. Overcast
11 May (1700-1800)	B	2 Swallow	14°39′N, 17°59′W (W Cape Verde 25′)	S. NNW/3 Cloudy
12 May (1620-1800)	B	Swallow	08°49′N, 15°22′W	S. NNW/3. Cloudy
		Swift (*Apus apus*)	(W Freetown 100′)	S
21 May (1630-1800)	B	House Martin	08°32′N, 15°50′W (W Freetown 140′)	S. NNW/3 Overcast.
21 May	L	Turtle Dove (Immature?)	05°00′N, 12°00′W (SW Liberia 650′)	S. D 25th. P. Lacked neck patches
20 June (0800)	G	Savi's Warbler (*Locustella luscinioides*)	28°02′N, 13°20′W (30′ from African coast between Canaries)	S. Lively. Wind NW/4
(1800)		Turtle Dove	26°58′N, 14°49′W (SE Canaries - 60′ from Africa)	S. Arr. E. Dep. S. Wind NW/4

TABLE D

NORTH ATLANTIC (NORTH OF 51°N)

1972

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
17 Mar (2230-0930/ 18th)	OWS. CIG	100+ Skylark (*Alauda arvensis*)	55°10′N, 05°20′W (Clyde to N of Rathlin Is.)	Many seen in lights. Some caught
		C20 Golden Plover (*Pluvialis apricaria*)		Several died on hitting mast occasionally seen. Calls taped. Thick fog. Wind SE/3
		2+ Lapwing (*V.vanellus*)		
		Several Robin (*E.rubecula*)		All birds vanished when fog cleared
7 May	A	Fieldfare (*Turdus pilaris*)	58°42′N, 03°22′W (Pentland Firth)	Flying E. Wind ESE/6. Overcast
9 May	OWS. CIG	Merlin (F) (*F.columbarius*)	56°05′N, 09°25′W (NW Tory I. 60′)	S 10 hrs. Killed and ate Wheatear. Wind SE/5
27 May (1120-1640)	OWS. TDR	House Martin (F) (*Delichon urbica*)	57°48′N, 15°18′W (330° Rockall 110′)	S. D. Dissected. Wind 060/8kt
		Purple Sandpiper (*Calidris maritima*)	58°12′N, 16°18′W (295° Rockall 100′) (170° Iceland 400′)	Flew past heading NW. Wind 040°/12kt. Vis 3nm
6 Sept (1735)	OWS. CIG	Turnstone (*A.interpres*)	57°38′N, 14°20′W (W Rockall 25′)	Flew past heading SE. Breeding plumage. Wind NW/4
7 Sept (1005)	OWS. CIG	White Wagtail (*M.a.alba*)	56°15′N, 09°23′W (SW Barra Hd. 75′)	Flew past. Wind NW/4
(1505)		Dunlin (*C.alpina*)	55°49′N, 08°10′W (NW Ireland 35′)	Flew past. Wind NW/4
28 Sept (1000)	OWS. CIG	Meadow Pipit (*A.pratensis*)	55°20′N, 08°16′W (NW Coast 12′)	Wind SE/3. Circled briefly
26 Oct (1540)	OWS. TDR	Purple Sandpiper	57°30′N, 13°48′W (SW Rockall 15′)	Circled 5 mins. 140°/35kt. Vis. 2 miles
27 Oct	OWS. CIG	Redwing (*Turdus iliacus*)	54°48′N, 10°48′W (NW Donegal 55′)	Wind S/7. Circled

ANALYSIS BY SEA AREAS—TABLE D 1972 (*continued*)

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
14 Nov (1000)	OWS. CIG	Snow Bunting (F) (*P.nivalis*)	55°37′N, 07°36′W (325° Malin Hd. 25′)	S 3 hr. Wind N/4
(1133)		Starling (*S.vulgaris*)	55°45′N, 08°20′W (297° Malin Hd. 40′)	Circled. Dep. E
(1320)		2 Snow Bunting	55°50′N, 08°20′W (305° Malin Hd. 55′)	Circled. Joined with No. 1. All dep. E. Wind N/4
		1973		
8 April (1310)	OWS. CIG	Oystercatcher (*Haematopus ostralegus*)	53°20′N, 16°30′W (W Ireland 200′)	Circled 20 mins. Wind NNE/4
Apr am 12th	M	Oystercatcher	63°29′N, 08°12′W (NW Faeroes 80′)	Wind 240/8kt
am 15th	M	Redwing	64°29′N. 09°02′W (ESE Iceland 140′)	
(1756)		Redwing	64°12′N, 08°30′W (ESE Iceland 160′)	Arr. SE. Dep. NW
am 16th	M	2 Redwing	E of Faeroes	Arr. S. Dep. N
am 17th (0815)	M	2 Oystercatcher Geese (*Anser Sp*)	63°12′N, 10°49′W (NW Faeroes 110′)	Flew past heading N. Wind 250/4kt. Prob. Greylag. Flying N
(1345)		8 Oystercatcher		In formation. Circled ship. Mobbed by Kittiwakes
(1500)		18 Greylag (*Anser anser*)	63°23′N, 11°38′W	
		2 Redwing	(W Faeroes 120′)	S
(1600-1800)		17 Greylag	63°28′N, 11°11′W	Heading NW. Wind 240/8kt
		7 Redwing		Heading NW. One S
(2030)		2 Redwing	63°22′N, 11°58′W (SE Iceland 110′)	One S
18 April	M	Redwing	62°53′N, 14°30′W (SE Iceland 80′)	S
(0625)		5 Redwing		Wind 300°/13kt

(0659)		11 Greylag	63°08′N, 14°34′W (SE Iceland 70′)	Heading NW. Ht. 150′ Wind 300°/13kt
(0800-1200)		14 Greylag 3 Scoter Sp (Velvet-*M*, *fuscus*?)	63°10′N, 14°40′W (SE Iceland 70′)	Heading NW Heading S Wind 280/16kt
19 April	M	19 Anser Sp	62°39′N, 10°44′W	Heading N.
(0800-1200)		6 Redwing	(WNW Faeroes 100′)	S. Wind 270/10kt
(1600-1800)		Snowgoose (*Anser caerulescens*)	62°35′N, 08°34′W	Heading N
		Merlin (*F.columbarius*)	(NW Faeroes 40′)	Heading S. Wind 320°/5kt. No description given
		Redwing		
		2 Oystercatcher		
20 April	M	6 Oystercatcher	63°08′N, 09°58′W	Heading NE
(0800-1200)				
(1230-1600)		55 Greylag	(NW Faeroes 95′)	Heading NW
		3 Redwing		Heading NW
		1 Starling (*S.vulgaris*)		Wind 150°/8kt
(1930)		1 Snow Bunting (*P.nivalis*)		
21 April	M	2 Mallard (*A.platyrhyncos*)	64°40′N, 10°40′W	Heading NW. (1M, 1F). Circled,
(1930)			(SE of E Iceland 85′)	Wind 030/18kt
(0400-0800)		8 Redshank (*T.totanus*)		
		2 Redwing		
		1 Snow Bunting (M)		S. Summer plumage
(0800-1230)		3 Redwing	64°N, 10′W	Wind 050/10kt
		1 Starling	(SE Iceland 120′)	S
		1 Snow Bunting		
(1200-1600)		1 Oystercatcher	64°20′N, 10°56′W	Heading NW
		1 Redwing	(SE Iceland 80′)	S
		4 Snow Bunting (1M, 3F)		Dep. NW
(1600-1800)		1 Merlin		
		1 Oystercatcher		Wind 050/10kt
		2 Redwing		
		5 Snow Bunting		
(1800-2000)		2 Redwing		
		3 Snow Bunting	64°35′N, 16°30′W (SE Iceland 90′)	

ANALYSIS BY SEA AREAS—TABLE D 1973 (*continued*)

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
22 April	M	1 Redshank	64°28′N, 10°50′W	Wind 170°. Light
(0400-0800)		1 Oystercatcher	(SE Iceland 85′)	S
		4 Golden Plover		One S
		62 Redwing		Dep. N. One flock of 50
		9 Snow Bunting		All Female
(0800-1230)		2 Whooper Swan (*Cygnus cygnus*)	64°10′N, 11°31′W	Heading N. Wind 185°. Light
		2 Merlin	(SE Iceland 75′)	One fell in sea and drowned
		1 Oystercatcher		
		7 Golden Plover		
		2 Redwing		
(1230-1600)		3 Golden Plover		S all day
		1 Redwing		S
(1600-1800)		1 Oystercatcher		S
23 April	M	1 Redshank	63°20′N, 13°30′W	
(0400-0800)		1 Golden Plover	(SE Iceland 80′)	S until 24th. Wind 210°/3kt
		6 Meadow Pipit (*A.pratensis*)		
		2 Redwing		
		2 Snow Bunting		
(0800-1230)		2 Redshank	63°10′N, 14°30′W	S. Wind light and var.
		4 Meadow Pipit	(SE Iceland 70′)	S
		2 Redwing		S
(1230-1600)		1 Oystercatcher		Flying E
		1 Redshank		S
		2 Meadow Pipit		S
(1800-2000)		2 Redwing	63°40′N, 11°30′W	S
			(SE Iceland 115′)	
26 April	M	1 Meadow Pipit	62°04′N, 13°58′W	S. Dep. SE
(0400-0800)		1 Wheatear	(SE Iceland 135′)	S. Wind 045°/22kt
(0800-1230)		1 Oystercatcher	(W Faeroes 200′)	Wind 040°/12kt
		2 Meadow Pipit		
		3 *Phylloscopus Sp*		
		1 Redwing		

27 April (0400-0800)	M	1 Merlin 2 Snow Bunting 3 Redwing	62°12′N, 14°21′W (SE Iceland 130′)	Swooped on small bird. Wind 040/18kt
28 April (0400-0800)	M	1 Snow Bunting	62°12′N, 15°02′W (SE Iceland 120′)	S. Wind 340/15kt
(0800-1200)		4 Red-necked Phalarope (*P.lobatus*) 4 Snow Bunting	62°24′N, 15°28′W (SE Iceland 110′)	Wind 330/15kt Summer plumage
29 April (0800-1200)	M	1 Barnacle Goose (*Branta leucopsis*)	62°42′N, 15°02′W (SE Iceland 90′)	Flying NE. Wind 020/25kt
3 May (1200)	M	1 Oystercatcher	60°18′N, 04°20′W (NW Orkneys 90′)	Flying E. Wind 030/6kt
4 May (0725)	OWS. CIG	Dunlin (*Calidris alpina*)	53°30′N, 15°40′W (W Ireland 175′)	Circled. Breeding plumage. Wind N/7
5 May (0300)	OWS. CIG	Redwing	55°00′N, 11°00′W (NW Ireland 55′)	S until 1800. Wind var. 1

TABLE E
WEST ATLANTIC

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
1972				
23 April	MET	American Robin (*Turdus migratorius*)	170° ESE C. Race Newfoundland	M.V. 'Manchester Challenge' Manchester Lines Ltd.
1973				
7 April	MET	Eastern Cowbird (M) (*Molothus ater ater*)	E Nova Scotia 25′	S.S. 'Nicolas Bowater' Cazer Irvine & Co Ltd.
29 April	MET	Cattle Egret (*Ardeola ibis*)	42°54′N, 64°10′W (SE N. Scotia 60′)	S.S. 'Nicolas Bowater' Cazer Irvine & Co Ltd.
10 April (0945)	D	Swift (*Apus apus*)	30°25′N, 60°30′W (SE Bermuda 270′)	Flew past
13 April (1000)	D	Red-headed Bunting (*Emberiza bruniceps*)	NW Providence Channel Bahamas	S 2 hrs.

ANALYSIS BY SEA AREAS—TABLE E 1973 (*continued*)

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
14 April	D	Great White Heron (*Egretta alba*)	25°14′N, 87°06′W	E/3. Flew past. S 1 hr.
(0830)			(Gulf of Mexico)	
(1200)		Red-headed Bunting	(W coast Florida 170′)	
(1315)		Great White Heron		Flew past
		Falcon Sp.		Flew past
12 May	MET	2 Cattle Egrets (*Ardeola ibis*)	28°25′N, 88°50′W	S.S. 'Nicolas Bowater'
			(Gulf of Mexico)	Cazer Irvine & Co Ltd.
			(S. Mississippi 40′)	S
15 May	E	Yellow-billed Cuckoo (*Coccyzus americanus*)	Gulf of Mexico (Galveston Roods) (entrance to Houston, Texas)	
		Black-crowned Night Heron (*Nycticorax nycticorax*)		

TABLE F
NORWEGIAN SEA, NORTH SEA, BALTIC AND ENGLISH CHANNEL
1972

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
6 April	A	White-tailed Eagle (*Haliaetus albicilla*)	69°25′N, 18°08′E to 69°47′N, 19°17′E	Circling
(0345-0005)		Eider (c.350) (*Somateria mollissima*)	(Inner heads 25′ SW Tromso proceeding NE)	Flocks of 150, 100, 40 and smaller groups
		6 Long-tailed Duck (*Clangula hyemalis*)		Group of 4 and 2
		12 Red-breasted Merganser (*Mergus serrator*)		One group – all males
(0605-0440)		100+ Eider	70°21′N, 21°32′E	Group of 100, 4.
		2 Long-tailed Duck	(NE of Tromso)	1M, 1F
		c.45 Snow Bunting (*P.nivalis*)		Flocks of 20 and 25

9 April	A	Meadow Pipit (*Anthus pratensis*)	59°30′N, 04°54′E (108° Shetland 200′)	S. Calm, cloudy
(1000)				
(1900)		Brambling (M) (*Fringilla montifrigilla*)	57°54′N, 07°28′E (Skagerrak, S Norway 20′)	S
13 April	A	Wheatear (*O.oenanthe*)	59°36′N, 20°01′E (Baltic, E Stockholm 90′)	S. D. X. Found dead. Prob. came onboard in fog
(0200)		Fieldfare (*Turdus pilaris*)		S. D. X
(0430-0530)		5 Starling (*S.vulgaris*)	60°12′N, 19°04′E (vicinity Aland Is.)	2 + 3 flying NNW. Wind N/2
15 April	A	Robin (*E.rubecula*)	56°42′N, 17°12′E (SE Gotland 50′)	S. D. Found dead
17 April	A	c.30 Curlew (*Numenius arquata*)	57°29′N, 11°37′E (Skagerrak, W Goteborg 25′)	Flying NE at 100 ft. Wind N/2
(0800)				
18 April	A	Hooded Crow (*C.cornix*)	55°25′N, 14°50′E (N Bornholm 20′)	Moulting
(1030-1210)		Skylark (*A.arvensis*)		S
		3 White Wagtail (*M.a.alba*)		Flying NW.
		1 Robin		S. Wind SW/2. Overcast
21 April	A	6 Red-breasted Merganser	61°37′N, 17°33′E	1 + 5
(0430-0710)		27 Goosander (*M.merganser*)	to 61°43′N, 17°08′E	Small Groups
		10 Eider	(Gulf of Bothnia)	On water/ice
		62 Mallard (*A.platyrhyncos*)	(West of Aland Is.)	Flocks 15 and smaller. Wind WSW/2 be.
		49 Goldeneye (*Bucephala clangula*)		
		10 Wigeon (*A.penelope*)		
		3 Canada Goose (*Branta canadensis*)		
		1 Robin		S
		6 Hooded Crow		Singles
22 April	A	1 Robin	61°10′N, 18°22′E (Gulf of Bothnia) (E Sweden 25′)	S
23 April	A	c.490 Barnacle Geese (*Branta leucopsis*)	55°39′N, 15°24′E (NE Bornholm 40′)	Flocks 300, 150, 40 Flying NE at 500 ft.
(1020-1100)		10 Eider (*S.decaocto*)		Flying NE at 200 ft. S
29 April	A	c.30 Black Tern (*Chlidonias niger*)	54°27′N, 11°46′E (Lubeck Bay)	Flock flying ENE at 50 ft. Wind S/5. Overcast, rain
(1715)				

ANALYSIS BY SEA AREAS—TABLE F 1972 (*continued*)

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
3 May (1300)	A	Grasshopper Warbler (*Locustella naevia*)	50°18′N, 01°39′W (English Channel) (SE Anvil Pt. 21′)	S. X. Light airs, bc.
(1700)		2 Collared Dove	50°07′N, 03°11′W (SE Start Pt.)	S. Wind NE/2. Overcast
8 May (1720–1745)	A	c.86 Velvet Scoter (*Melanitta fusca*)	57°09′E, 10°45′E (Skagerrak NE Skaw 35′)	Several flocks, some flying E. Light airs, bc.
13 May (0930)	A	2 Collared Dove	57°14′N, 08°10′E (NW Denmark 20′)	S. Wind NxE/3. Cloudy
		1 Meadow Pipit		S
		1 Whitethroat (*S.communis*)		S
18 May (1630-1730)	A	Black-Throated Diver (*Gavia arctica*)	56°04′N, 16°46′E (Baltic S Oland 15′)	Light airs
		Turtle Dove		S
		4 Grey-headed Wagtail (*M.f.thunbergi*)		S
		Whitethroat		S
		Chiffchaff		S. Dark legs
12 Aug (0835)	B	3 Grey Heron (*Ardea cinerea*)	51°15′N, 01°46′E (Thames Estuary)	Flying SE at 150 ft.
		1973		
31 May (1300-1410)	B	Skylark	56°29′N, 06°27′E	S. Wind S/2. Fog
		3 Turtle Dove	(N. Sea. 050°	) S Arrived together from
		1 Collared Dove	Flamboro' Hd. 560′)	) S SE

TABLE G
MEDITERRANEAN
1972

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
3 Aug (1620-1700)	B	Hoopoe (*Upupa epops*)	35°50′N, 00°16′W	
		House Martin (*Delichon urbica*)	(1M off Oran)	

18 Aug (1630-1800)	B	Woodchat Shrike (*Lanius senator*)	32°10′N, 16°57′E	S. Wind NW/3, bc.
		2 Garden Warbler (*Sylvia borin*)	(N. Libya 55′)	S
		Chiffchaff (*P.collybita*)		S. Dark legs
		Whitethroat (*Sylvia communis*)		S
20 Aug (1015)	B	Purple Heron (*Ardea purpures*)	31°19′N, 17°50′E	S. Arr. SW. Dep. W
(1630-1800)		Garden Warbler	(N. Libya 25′)	S
		7 Whitethroat (M + F)	32°33′N, 16°28′E	S. Wind NE, bc.
		Subalpine Warbler	(NE. Libya 50′)	S
		3+ Garden Warbler		S
22 Aug (1615-1800)	B	2 Turtle Dove (*S.turtur*)	37°06′N, 04°39′E	S. Wind var. bc.
		2 Red-breasted Flycatcher (*Ficedula parva*) (F)	(N. Algeria 10′)	S
		2 Whitethroat (1M, 1F)		S
		Wheatear (*O.oenanthe*) (F)		S
23 Aug (1000)	B	Turtle Dove	36°33′N, 00°38′W	S. Wind E/4, bc.
		Wheatear (M, Imm.)	(N. Algeria 45′)	S
27 Nov (1530)	J	Robin (*Erithacus rubecula*)	38°45′N, 09°30′E (180° Sardinia 20′)	S 4 hrs. Arr. N. Dep. S. Wind E/4. Good vis.

1973

28 Mar (0800-1030)	D	Isabelline Wheatear (*O.isabellina*) (F)	33°12′N, 23°38′E	S 1 hr. Wind ESE/4
		2 Desert Wheatear (*O.deserti*) (2F)	(N. Cyrenaica 60′)	S ½ hr. Good vis.
		Icterine Warbler (*Hippolais icterina*)		S ½ hr.
31 Mar (0915)	D	Swallow (*H.rustica*)	37°01′N, 04°29′E (N. Algeria 12′)	Wind E/4
16 June	E	Turtle Dove	34°58′N, 18°07′E	S 7 hrs. N/5-4. Good vis.
		Red-footed Falcon (*F.vespertinus*)	(Ionian Sea SW Greek Is. 200′)	S 36 hrs.
2 July (1600)	F	3 Turtle Dove	34°56′N, 17°34′E (SE Sicily 140′)	Flew past

TABLE H

INDIAN OCEAN – RED SEA – PERSIAN GULF

1971

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
7 Feb (1200)	A	Swallow (*H.rustica*)	15°10′S, 42°44′E (Mozambique Channel)	S
27 Feb (1700)	A	2 White Wagtail (*M.alba*)	22°58′N, 36°52′E (Red Sea)	S
28 Feb (1200)	A	3 Hoopoe (*Upupa epops*)	19°40′N, 37°25′E (Red Sea)	Circled and landed many times

1972

2 May (C.0830)	F	Barn Owl (*Tyto alba*)	20°02′S, 35°25′E (SE Beira 30′)	Circled ship. Mobbed by Kelp Gulls
(0840)		8 Egret Sp?	20°01′S, 35°15′E	Flying SE to NW. Light airs
21 Aug (1000)	G	Hoopoe	25°20′N, 58°00′E (Gulf of Oman)	Circled ship 1 hr. Light airs
26 Aug (0630)	G	Hoopoe	(Off Qatar)	Flew past
23 Sept (1300)	C	Rufous Turtle Dove (*S.orientalis*)	03°21′N, 50°28′E (Off Somalia)	S. Wind S/2
28 Sept (1615-1745)	C	Sanderling (*Crocethia alba*)	04°19′N, 50°57′E (Off Somalia)	S. Wind SW/2
		Stint (Little/Temmink's) (*C.minuta/temminckii*)		S. Dark centre to tail white outer
		Flycatcher Sp?		S. Catching insects on deck
30 Sept (1625-1700)	C	Flycatcher Sp. Brown? (*Muscicapa latirostris*?)	16°01′N, 57°07′E (SE Kuria Muria Is 140′)	S. Calm clear skies, feeding insects
		White Wagtail		S
		2 *flava* Wagtail (*M.flava*)		S

1 Oct (1635-1800)	C	Egyptian Nightjar (*Caprimulgus aegyptius*)	21°53′N, 59°57′E (Off Masirah Island)	S
		Flycatcher Sp (*Muscicapa sp*)		S Faint streaks (*M.striata*?)
		Red-backed Shrike		S
2 Oct (1730-1800)	C	2 Kestrel (F or Imm.) (*Falco tinnunculus*)	25°09′N, 57°31′E (Gulf of Oman)	S. Remained all night Wind NW/2
3 Oct-7 Oct	C	2 Egyptian Nightjar	24°13′N, 52°43′E	S. Wind N/1-2
		Isabelline Wheatear (*O.isabellina*)	(Persian Gulf) (5′ from land at Jebel Dhanna)	S
		7 Desert Wheatear (*O.deserti*)		S
		Black-eared Wheatear (*O.hispanica*)		S
		1/2 Lesser Whitethroat (*Sylvia curruca*)		S
		Desert Lesser Whitethroat (*S.minula*)		
8 Oct	C	Desert Wheatear	24°13′N, 52°40′E	S. Wind NW/2
		2 Isabelline Wheatear	(2.6′ from land Jebel	S
		Egyptian Nightjar	Dhanna)	S
		Turtle Dove		S
		Warbler Sp?		S
11 Oct (1615-1800)	C	Turtle Dove	17°06′N, 65°50′E	S. Wind NE/2. Clear sky
		"*flava*" Wagtail	(Central Arabian Sea 380′	S
		Small Wader	from India)	S. Stint Sp?
12 Oct	C	Dunlin (*Calidris alpina*)	14°16′N, 68°32′E	S. Wind NNW/2, bc.
(0930-1000)		White Wagtail (*M.a.alba*)	(WSW Goa 380′)	S
(1630-1800)		White Wagtail	12°58′N, 64°42′E	S 5 days. X
		Lark or Pipit Sp?	(NW Laccadives 180′)	
13 Oct (1630-1800)	C	2 "*flava*" Wagtail	08°21′W, 73°52′E	S
		Rose-coloured Starling? (*Sturnus roseus*?)	(Laccadives)	S. Possible Imm. Silver ring on right leg
15 Oct (1650-1800)	C	2-3 Swallow Sp?	00°00′, 82°01′E (S Ceylon 500′)	S. Calm. Overcast. Thought to be *H.rustica*
15 Nov (1130)	D	2 Swallow	01°47′N, 80°02′E (S Ceylon 400′)	Flying NW/SE. Wind NW/2· Overcast
16 Nov (1000)	D	2 "*flava*" Wagtail (*M.f.thunbergi*?)	06°29′N, 75°52′E (SW Ceylon 250′)	S. NE/1. Overcast. Feeding dragon flies and insects

ANALYSIS BY SEA AREAS—TABLE H 1972 (*continued*)

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
16 Nov (1635-1800)	D	3 "*flava*" Wagtail	07°53′N, 74°35′E (W Cape Comorin 200′)	S
17 Nov (1000)	D	2 "*flava*" Wagtail (*M.f.flavissima* Imm?)	10°58′ N, 71°00′E (Laccadives)	S. Light airs, bc.
18 Nov (1630-1800)	D	2 "*flava*" Wagtail (1 *M.f.thunbergi*?)	16°45′N, 65°36′E (Central Arabian Sea)	S all day. Wind NE/4. Cloudy
21 Nov (0615-0800)	D	Swallow Sp? (*H.rustica*?)	26°19′N, 55°13′E (Persian Gulf)	W, X, N, 4, b
23-28 Nov	D	Buzzard Sp 2 Starling (*Sturnus vulgaris*)	29°44′N, 48°48′E (17′ Khor Alamaya)	At anchor. S. 5 mins. 23rd S 23rd 24th
11 Nov	MET	Squacco Heron (*Ardeola ralloides*) Sooty Falcon (*Falco concolor*)	Mozambique Channel off Comores Islands	S.S. "Esso Warwickshire"
		1973		
8 April (1100)	C	Olivaceous Warbler (*Hippolais pallida*)	24°56′N, 51°39′E (Ummsaid)	S. Wind W/4kt
11 April (1100)	C	Raven (*Corvus sp*) Swift (*A.apus*)	26°28′N, 56°32′E (Quoin Is.)	Prob. Brown-necked (*C.ruficollis*) Circling island. NW/14kt
12 April (1630)	C	Osprey	23°51′N, 58°04′E (Daimaniyat Is)	Circled ship, dep. W. NW/14kt
18 April (1230)	C	2 Richard's Pipit (*A.novaeseelandiae*)	24°52′N, 53°05′E (Zarga Is.)	Ashore. NW/7
17 April (0800)	K	Night Heron (Imm.) (*Nycticorax nycticorax*)	Indian Ocean (E Pemba Is. 9′)	S. Tropical thunderstorm. Exhausted. Caged and force fed with salmon! Revived
		50+ Warbler Sp? Swallow (*H.rustica*)		S several species S
15 May	MET	Peregrine Falcon (*Falco peregrinus*)	13°40′S, 119°E (S Indonesian Is. 300′)	S 3 days. M.V. 'Crystal Sapphire', Sugar Line Ltd. Preyed on small landbirds, Tropic Bird and Petrel

TABLE I

PACIFIC

1972

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
24 Sept (0900)	L	Osprey (*Pandion haliaetus*)	21°43′N, 113°53′E (SW Hong Kong) (NW Cape 17′)	Circled twice, did not settle. Vis. v. good
8 Oct (1200)	K	3 Swallow (*Hirundo rustica*)	11°22′N, 129°55′E (E Philippines 320′)	S 1 hr. Arr. W. Dep. S. Wind WSW/3. Cloudy, overcast, mod. vis. Attempted to catch many dragon flies which arrived same time
27 Oct (1045)	L	2 Arctic Redpoll (*Acanthis hornemanni*)	41°20′N, 148°36′E (E Japan 500′)	S 1 hr.
30 Oct until 6 Nov	MET	Osprey	00°17′S, 93°07′W (Galapagos Is. flew off 23°08′S, 134°58′W Pitcairn Island)	S for 2700′ M.V. 'Huntingdon'
10 Nov	MET	10 Common Egret (*Casmerodius albus*)	9°20′N, 91°00′W (W Costa Rica)	S. Exhausted. Wind NE/4-5. Rain M.V. 'Baron', Ardrossan

1973

25 April (0600-0800)	H	Swallow (*H.rustica*)	81°55′N, 165°18′E (N Pacific 1000′N of Wake Island)	S. Wind NW/5. Good vis.
12 June (1600-1900)	I	Turtle Dove (*S.turtur*)	40°28′N, 151°42′E (SW Kurile Is. 450′)	S 8+ hrs. Wind E/3
14 June (0500-0700)		Turnstone (*Arenaria interpres*)	43°39′N, 163°16′E (SW Kurile Is. 600′)	Arr. S. Dep. S. Wind NW/3. S

SUMMARY OF LANDBIRDS EXAMINED IN THE HAND 1970-73

The following records of landbirds examined in the hand have been received during the period 1970-73 (up to 1 Sept. 73). Reference is made to them in the relevant analysis of Ocean Weather Ship station reports and Sea Passage reports (* denotes mention in *Sea Swallow* Vol. 22).

Key to abbreviations:

S	– stayed onboard (duration)	F	– female
R	– released	Imm	– immature
D	– died onboard (duration)	M	– male
BM	– corpse sent to British Museum	/F	– wind force
P	– photographs taken	nm	– vis in nautical miles

1970

Species (sex)	*Observer/Ship*	*Arrival date/time*	*Lat./ long.*	*Nearest land*	*Wind, weather, vis.*	*Remarks*
1. Summer Tanager (F) (*Piranga rubra*)	Capt. S. E. Chapman S.S. 'Pizarro'	18 Apr 1000	34°30′N 59°25′W	ENE Bermuda 300′ SE N. Scotia 650′	E x N/F4 Good. vis. Rain	D (18 hrs.). BM
2. Swallow (*H.rustica*)	R. B. Dyer OWS. W. Reporter	5 June 1800Z	57°39′N 17°05′W	310°Ireland 360′ 170° Iceland 380′	150°/F4 Poor. 2nm	Lively. S (4 hrs.)
3. Swallow (*H.rustica*)	R. B. Dyer OWS. W. Reporter	6 June 1400Z	58°44′N 22°14′W	300° Ireland 520′ 200° Iceland 330′	220°/F6 Poor. 5nm	Exhausted S (28 hrs.)
4. *Turtle Dove (*Streptopelia turtur*)	R. B. Dyer OWS. W. Reporter	12 June	62°N 33°W	Station Alpha 090° Greenland 240′	290°/F3 10nm	Fed on "swoop" S (4 days) Lively. Dep NE
5. *Kestrel (F) (*Falco tinnunculus*)	R. C. L. Aran OWS. W. Surveyor	22 Oct	52°38′N 19°44′W	180° Iceland 400′ 275° Ireland 500′	200°/28kt Good. 8nm	Caught and ate Storm Petrel. Also raw meat
6. Goldcrest (M) (*Regulus regulus*)	Capt. P. W. G. Chilman S.S. 'Hydatina'	23 Oct 1040	53°45′N 05°56′E	N. Sea 17′ off Dutch Is.	NNE/F3 V. good	D (9 hrs.)

7.	Swallow (*Hirundo rustica*)	POM (E) Betts H.M.S. 'Dido'	20 Nov	20°00′S 35°15′E	SE Beira 40′	170°/12kt Overcast. Rain	Exhausted. P. R (16 hrs.) Died in sea
8.	Grey-hooded Kingfisher (*Psuedhalcyon pallidiventis*)	POM (E) Betts H.M.S. 'Dido'	6 Dec	19°56′S 35°03′E	SE Beira 25′	NE/20kt V. good	One of 3 flying on and off ship. P. R.

1971

1.	*Purple Sandpiper (Imm.) (*Calidris maritima*)	R. B. Dyer, *et al* OWS. W. Reporter	18 Apr 1900Z	59°N 19°W	Station India 180° Iceland 350′	290°/15kt Poor. Hail 1.5nm	Weak. S (17 hrs) R. Died in sea
2.	*Golden Plover (M) (*Charadrius apricarius*)	R. C. L. Aran OWS. W. Surveyor	23 Apr	58°56′N 19°24′W	Station India	100°/8kt Good. 12nm	Summer plumage *C.a.altifrons* D (3 days). BM
3.	Dunlin (M) (*Calidris alpina*)	P. S. Rule OWS. W. Monitor	25 Apr	62°15′N 33°04′W	Station Alpha 090° Greenland 240′	090/11kt Poor vis.	Arr. exhausted
4.	Redshank (F) (*Tringa totanus*)	P. S. Rule OWS. W. Monitor	25 Apr	62°15′N 33°W	Station Alpha	090/11kt Poor. vis	Fairly lively at first. D
5.	*Meadow Pipit (*Anthus pratensis*)	R. B. Dyer, *et al* OWS. W. Reporter	10 May	62°N 33°W	Station Alpha	330/F4. Good. Overcast	D (17 hrs.)
6.	Nightingale (*Luscinia megarhyncos*)	Capt. P. W. G. Chilman S.S. 'Serenia'	26/27 Jul	45°39′N 01°27′W	Biscay 9.5nm mouth of R. Gironde	W/F3-4. Heavy th.-storm	Found dead at daylight
7.	Whitethroat (F, 1 Imm.) (*Sylvia communis*)	Capt. P. W. G. Chilman S.S. 'Serenia'	25 Aug 0930	49°44′N 02°32′W	English Channel W Alderney 11′	NE/F3. Mod. haze 2nm	D at 1400
8.	Yellow-Eye (M?) (*Serinus mozambicus*)	Capt. P. W. G. Chilman S.S. 'Serenia'	14 Sept	15°18′N 17°56′W	NNW Dakar Senegal 38′	Light airs. Overcast. Good vis.	D on 15 Sept.
9.	Wheatear (F) (*Oenanthe oenanthe*)	Lt. T. A. Crich, R.N. H.M.S. 'Hecate'	26 Sept	56°25′N 08°58′N	West of Scotland 245° Mingulay 49′	060°/15kt	D (20 hrs.). P
10.	*Wheatear (F) (*O.oenanthe*)	R. B. Dyer, *et al* OWS. W. Reporter	2 Oct 2000Z	53°15′N 17°28′W	W. Ireland 270′	060°/F2 Vis. 2.2nm	D (12 hrs.). BM BM

SUMMARY OF LANDBIRDS EXAMINED—1971 (*continued*)

Species (sex)	*Observer/Ship*	*Arrival date/time*	*Lat./ long.*	*Nearest land*	*Wind, weather, vis.*	*Remarks*
11. Wood Warbler? (*Phylloscopus Sp*)	R. B. Dyer, *et al* OWS. W. Reporter	2 Oct 1930Z	53°15′N 17°28′W	W. Ireland 270′	Nil Overcast. 2.2nm	D (16 hrs.) BM
12. *Two-barred Crossbill (F) (*Loxia leucoptera*)	R. B. Dyer, *et al* OWS. W. Reporter	18 Oct 0900Z	52°30′N 20°W	Station Juliet W. Ireland 430′	260°/F7 Overcast. 5.4nm	Exhausted. Fed "swoop" D (14 hrs.). BM
13. *Chaffinch (F) (*Fringilla coelebs*)	R. B. Dyer, *et al* OWS. W. Reporter	29 Oct	55°06′N 09°10′W	W. Donegal 20′	SW/F5 Good. 10nm	Lively. Fed "swoop" S (24 hrs)

1972

1. Fieldfare (*Turdus pilaris*)	Capt. P. W. G. Chilman S.S. 'Helisoma'	13 Apr 0200	59°36′N 20°01′E	Baltic E. Stockholm 90′	N/F2 Overcast. Mist	Found dead. BM
2. Wheatear (M) (*Oenanthe oenanthe*)	,,	13 Apr	59°36′N 20°01′E	,,	,,	Found dead. BM
3. Swallow (*Hirundo rustica*)	R. B. Dyer, *et al* OWS. W. Reporter	17 Apr 1100Z	52°30′N 20°00′W	Station Juliet W. Ireland 430′	180/F5 Overcast. 5nm	S (12 hrs.)
4. Grasshopper Warbler (*Locustella naevia*)	,,	25 Apr 1100Z	52°30′N 20°00′W	,,	050/F2 Overcast. 10nm	V. lively. S (9 hrs.)
5. Grasshopper Warbler (*L.naevia*)	Capt. P. W. G. Chilman S.S. 'Helisoma'	3 May	50°18′N 01°39′W	English Channel SE Anvil Pt. 21′	Light airs. Mist 21m	Timid. Skulking. S (3 hrs. +)
6. Grey Wagtail (F) (*Motacilla cinerea*)	D. M. Simpson M.V. 'Foh Kim'	22 May	19°40′N 120°31′E	NW Philippines 80m	Light airs. Heavy rain. Poor vis.	Killed in rigging. Good sketch

7.	Wheatear (M) (*O.oenanthe*)	E. D. MacDonald OWS. W. Adviser	13 Sept	52°42′N 18°30′W	W. Ireland 330′	Light airs. Overcast. 10nm +	Arrived active but died later
8.	Wheatear (F) (*O.oenanthe*)	,,	12 Sept	52°41′N 18°32′W	,, ,,	Light airs. Overcast. 27nm +	Arrived active but weakened. D
9.	White Wagtail (M) (*Motacilla a.alba*)	Capt. P. W. G. Chilman M.S. 'Donax'	12 Oct	12°58′N 69°42′E	Indian Ocean NW Laccadives 180′	Light airs. Fine. Good vis.	S (5 days). Took passage 2000nm
10.	Starling (*Sturnus vulgaris*)	R. B. Dyer, *et al* OWS. W. Reporter	11 Nov	52°30′N 20°W	Station Juliet	160°/F4 Good vis.	Lively. S (5 hrs.)

1973

1.	Swallow (*Hirundo rustica*)	Capt. P. W. G. Chilman S.S. 'Mytilus'	9 May 0915	30°23′N 14°41′W	100° Madeira 110′ 075° Salvages 64′	NE/F6 4/8cu 7nm	Exhausted. D (2 hrs.)
2.	Wood Pigeon (*Columba polumbus*)	R. B. Dyer, *et al* OWS. W. Reporter	16 May 1200Z	52°30′N 20°00′W	Station Juliet W. Ireland 420′	150/F5 6/8st. Good	D (3 days)
3.	Swallow (*Hirundo rustica*)	,,	15 May 1500Z	52°30′N 20°00′W	,,	260/F3 3/8st. Good	Two lively S (2 hrs.)
4.	House Martin (*Delichon urbica*)	R. B. Dyer, *et al* OWS. W. Reporter	23 May	52°30′N 20°00′W	,,	030/F2 Overcast. Fog	S (3 days)
5.	Dunlin (*Calidris alpina*)	,,	23 May	52°30′N 20°00′W	,,	020/F2 Overcast. Fog.	D (12 hrs.)
6.	Wheatear (F) (*Oenanthe oenanthe*)	,,	25 May	52°30′N 20°00′W	,,	190/F4 Overcast. Good vis.	S (10 hrs.)
7.	Sand Martin (*Riparia riparia*)	Capt. P. W. G. Chilman S.S. 'Mytilus'	7 July 1600	27°39′N 51°20′E	Persian Gulf SW Coast Iran 14′	NNW/F5 Clear. Good	D (12 hrs.)

M. B. C.

EXTRACTS FROM METEOROLOGICAL REPORTS 1972/73

From Notes received from Captain N. B. J. Stapleton, R.D.

(FOREWORD) THE BRITISH METEOROLOGICAL LOG SCHEME FOR INCLUDING REPORTS ON BIRDS OBSERVED AT SEA

Probably it is not known to many readers of *Sea Swallow* that some time ago through the co-operation of the Meteorological Office space was provided in the Met. Log returns of British Merchant Ships for the inclusion of such reports for the information of R.N.B.W.S.

The result, affecting as it did many persons unaware of the work of R.N.B.W.S., developed hitherto untapped interest, and has increased the coverage of observations at sea in a remarkable way. Direct contact is now made with many observers, and the quality of observations under the guidance of R.N.B.W.S., and in articles kindly published in the "Marine Observer" is becoming a valuable factor.

The reports frequently indicate the interest taken by these ships in the habits of the birds reported. Space will permit of only the few examples which follow.

While passing six miles S.E. of Isla Espanola, Captain J. H. B. Weston, M.V. *Orake*, experienced a curious phenomena when he sighted two Frigate-birds, either Great Frigate-birds or Magnificent Frigate-birds. These birds flew quite low over the ship when one of them became interested in the ship's main aerial. On occasions the bird flew at the aerial snapping at it with its beak. It continued to do this for about 20 minutes, attacking the aerial in a curiously angry fashion, before finally flying off.

Mr Martin Grover, Second Officer of S.S. *Manchester Quest* discovered a Leach's Storm-Petrel attempting to get over the storm step into the accommodation. The bird appeared healthy but stunned after flying into the superstructure. He placed it in a cardboard box covered by an old flag to make it comfortable in his cabin for the night. Next morning, he quotes: "The smell in the cabin amply verified my reference book's note that Petrels have a 'pungent odour'." On looking in, the bird was buried under the flag, head down, but appeared none the worse. It showed no aggression but kept tunnelling under the flag.
Note: We have previous examples of Storm-Petrels tunnelling up members' sleeves when taken up in the hand for examination.

A very similar account has been given by Mr R. D. Caile, S.S. *Hemisfusus*, when on passage from Balboa to Yokohama when an exhausted Madeiran Storm-Petrel was found on deck early in the voyage. After being placed in a suitable box for shelter for 8 hours it was able to fly off strongly.

Peregrine Falcons have been frequently reported taking post onboard ships at sea. Mr L. Robbins, 3rd Officer, S.S. *Nicolas Bowater*, records such a case while his ship was on passage from New Orleans towards Newfoundland. During the Falcon's 3 days onboard, besides capturing small landbirds and a Petrel (identifications not given), it was quoted as capturing also a Tropic-bird.

SEABIRDS INVADING SHIPS

Of all seabirds of the oceans there can be no doubt that Boobies are the most regular "sitters in". The following are some examples from our Met. Reports. S.S. *Hemisfusus* and M.V. *Eriksay* on passage from Balboa to Japan between 17th to 24th March, 1972, and 16th to 23rd January, 1973, respectively, from approximately 10 degrees N, 91 degrees W, and 11 degrees N, 112 degrees W and Hawaii. Both ships were continually subjects to the "sitting in" of Blue-faced and Brown Boobies which roosted in the rigging at night, fishing from the ships by day on flying fish disturbed from the bow wash. Up to a dozen birds were regularly onboard.

One even longer visit by a Blue-faced Booby occurred in 1972. The bird came onboard Captain A. M. Frazer's ship, M.V. *Temple Arch*, on 17th October at 7 degrees S, 98 degrees 10′ W as the ship was on passage from Balboa to Auckland. It made its roost invariably on the top of No. 1 crane using this also as a vantage point when flying off to capture fish. In this way it travelled 1,800 miles, finally leaving when the ship was at least 100 miles from Ducie Island, the nearest land.

AN OSPREY TAKES A LONG SEA TRIP IN THE SOUTH PACIFIC

On 30th October 1972 an Osprey landed on M.V. *Huntington* off the Galapagos Is. and travelled onboard for some 2,700 miles, showing no objection to being handled by members of the ship's crew when an excellent photograph was taken. On 6th November it was finally launched off the arm of a crew member when the ship was abeam of Mangareva Island, 23 degrees 08′ S, 134 degrees 58′ W, and flew off towards the island.

SOOTY TERNS FOLLOWING SHIPS BY NIGHT

Captain A. Macleod, M.V. *City of St. Albans*, while on passage from Durban towards Karachi, noted the habit of Sooty Terns following the ship by night and feeding on Squid, giving vent the while to high pitched screams.

The R.N.B.W.S. wishes to thank the many observers for their patience and work in forwarding reports, and in the increase in the number and quality of drawings of the birds which are of considerable assistance in assessing their identity.

CONCENTRATION OF SEABIRDS IN NORTH PACIFIC, 26th and 27th APRIL 1973. EXTRACT FROM PASSAGE REPORT OF CHIEF OFFICER D. H. MOBBERLEY

During a passage from Western Australia to Ferndale in North-Western U.S.A. at 14 knots a depression had just overtaken his ship, M.V. *Mountpark*, in position 34 degrees N, 174 degrees E, the wind backing from WNW force 2 towards WSW force 4 to 5. As he quotes: "We were feeling the suction effect in its wake with perhaps an effect from the meeting of the cold Aleutian Current with the North Pacific Drift. These weather conditions prevailed through out. Seals were subsequently observed on the 27th".

Already between 21st to 24th April on a line between 22 degrees N, 143 degrees E, and 30 degrees N, 159 degrees E, a total of 680 of Pale-footed Shearwaters, *Puffinus carneipes*, had been observed.

MOBBERLEY'S OBSERVATIONS AND COMMENTS, 34 degrees N, 174 degrees E.

26th April, 1600 *hrs* - 1900 *hrs*. 19 Black-footed Albatrosses, *Diomedea nigripes*, and 8 Laysan Albatrosses, *Diomedea immutabilis*, in company. 19 Pomarine Skuas, *Stercorarius pomarinus*, flying at about 22 feet in one group with gentle flapping flight with little sense of urgency. 60-80 Peale's or Mottled Petrels *Pterodroma inexpectata*, seen in twos and threes. 120-140 Grey Phalaropes, *Phalaropus fulicarius*, one group of 50-60 flying near the surface, another of 70-80 at about 150 ft.

27th April, 0500 *hrs* - 0800 *hrs*. 36 degrees N, 179 degrees 33′ E – Date Line. The sea was literally alive with bird and marine life. 60-70 Laysan Albatrosses. 50-60 Black-footed Albatrosses. 35-40 Pomarine Skuas and 25-30 Arctic Skuas, *Stercorarius parasiticus*. The Skuas generally took no notice of other birds. The Pomarine Skuas took no notice of the ship, Arctic Skuas in small numbers inquisitive and closing the ship. Shearwaters abounded between 5,000-6,000 being observed. Sooty Shearwaters, *Puffinus griseus*, predominated to about 3,000 forming in groups. Peale's or Mottled Petrels were the next largest group, about 1,500, a constant stream progressing northwards. The remainder were a mixture of Short-tailed Shearwaters, *Puffinus tenuirostris*, and Pale-footed Shearwaters, *Puffinus carneipes*.

The most remarkable feature of the morning was the large numbers of Grey Phalaropes, estimated between 2,800-3,000. All were moving eastwards in groups taking off from the water and either rising to about 150 ft. or flying swiftly over the surface, invariably joined in the air by smaller groups before settling again on the sea as one large group of about 150 birds. No bird calls were heard.

When flying close to the surface both Peale's and Sooty Shearwaters would pass through a raft without causing alarm to the Phalaropes. On three separate occasions a Laysan Albatross was seen flying about 2 or 3 feet above a raft of 60-70 Phalaropes or altering course and staying with them in the air, but causing no alarm. I never saw a Black-footed Albatross having anything to do with them.

27th April, 1600 *hrs* - 1900 *hrs*. The sea was covered with millions of tiny "Portuguese Men o' War" and also their spawning sacks. About 1,500 Sooty Shearwaters were seen and about 500 Peale's or Mottled Petrels. The Sooties were gorged on the spawning sacks and many could not get airborne. No Peale's were seen like this. 40-50 Laysan Albatrosses and the same number of Black-footed Albatrosses, together with 1,500-2,000 Grey Phalaropes.

Having crossed the International Date Line and now at 36 degrees N, 176 degrees W on 27th April similar conditions prevailed but on a much reduced scale. Sightings occurred between 0600 hrs - 0800 hrs of only 5 Laysan, 8 Black-footed Albatrosses, 30-40 Sooties, 50-60 Peale's or Mottled Petrels, and 300-400 Grey Phalaropes.

NOTE BY EDITOR: Previous plots on R.N.B.W.S. Ocean chart of North Pacific show that over this arc of the ocean both Sooty, Short-tailed, and Pale-footed Shearwaters have regularly been reported at this season in May, together with Grey Phalaropes. The Phalaropes and Sooty Shearwaters have also been plotted further to the north-east. Mobberley has reported Peale's Petrels previously to the north-east in June, but this is the first report received of such numbers in the area quoted.

CONCENTRATION OF NORTHERN GANNETS, *Sula bassana*, AND LESSER BLACK-BACKED GULLS, *Larus fuscus*, OFF SPANISH SAHARA NORTHWARDS, 25th-29th DECEMBER, 1972. EXTRACT FROM PASSAGE REPORT OF CAPTAIN P. G. W. CHILMAN, M.N.

During a passage from the Persian Gulf to Le Havre in M.S. *Donax* Captain Chilman was passing close to the "bulge" of north-west Africa, northward bound, in position 23 degrees 42′ N, 16 degrees 28′ W, when large numbers of both species, apart from other seabirds, were first noticed.

CHILMAN'S OBSERVATIONS AND COMMENTS, 23 degrees 42′ N, 16 degrees 28′ W.

25th December 1972. 0900 *hrs* - 1600 *hrs*. Estimated at least 500 Northern Gannets, *Sula bassana*, an hour over the period, mostly fishing. Mainly adults but a good many immature and young birds. Between 1620 hrs and 1805 hrs about 676 in flocks of 250-300 were on the water near Korean fishing trawlers, mainly adults. There were also several others in what he termed "family" groups,

i.e. 2 adults, 4 immature; 2 adults, 1 immature; 2 adults, 1 immature and 3 young in line ahead; 3 adults, 1 immature and 2 young in line ahead. He wondered if there was any evidence that Gannets retain any form of family structure outside the breeding season? At the same time about 600 Lesser Black-backed Gulls, *Larus fuscus*, were seen, mainly immatures 26th December, 28 degrees 40′ N, 13 degrees 13′ W. At least 500 Gannets on the water and fishing, about 60% being immatures.

There was a relative gap between 26th and 27th, though some Gannets and Lesser Black-backed Gulls passed flying to the S.W. One Black-backed Gull showed a large white patch on each upperwing. *29th December*, 38 degrees 37′ N, 09 degrees 37′ W. Huge numbers of Gannets, estimated at 5,000, mainly adults, on water and fishing, and 10,000 Lesser Black-backed Gulls, mostly adults, flying and on the water. The mantles varied from darkish grey to almost black. Some had dark grey streaking on heads and necks and a dark collar of streaks; legs appeared orange.

NOTE BY EDITOR: It seems possible that some may have been yellow-legged Herring Gulls or the Scandinavian race of the Lesser Black-backed Gulls, *Larus fuscus fuscus*, and in sub-adult plumage.

FURTHER NOTES ON THE BIRDS OF MANOEK ISLAND, 5°33′S, 130°18′E. By W. R. P. Bourne.

Manoek or Manuk Island in the Banda Sea, which was examined by Chief Officer D. M. Simpson on 23rd October 1969 (*Sea Swallow* 21:40, where the location is given incorrectly as 113°E in the Java Sea) is now visited regularly by the *Lindblad Explorer* on her East Indies cruises. Guy Mountfort was able to land briefly when the ship called there on 16th June 1973, and reports that the island is a steep cone about 1,000 ft. high and half a mile wide, clothed with stunted trees from above low cliffs to about half-way up to the summit. He thought about 20,000 seabirds were present, mainly Greater and Lesser Frigate-birds, *Fregata minor*, and *F. ariel*, Blue-faced, Brown and Red-footed Boobies, *Sula dactylatra*, *S. leucogaster* and *S. sula*, and White-tailed Tropic-birds, *Phaethon lepturus*, also a White-bellied Fish-eagle, *Haliaeetus leucogaster*, and a pair of Brush-turkeys, *Alectura* sp., while Wedge-tailed Shearwaters, *Puffinus pacificus*, were seen at sea nearby. Neither Christmas Frigate-birds, *Fregata andrewsi*, nor Abbott's Booby, *Sula abbotti*, were detected.

Chief Officer Simpson also passed the island again on 19th February 1970, when he again estimated that about 90,000 seabirds were present, 10,000 Frigates and the rest half each Red-footed and Brown Boobies. About 60% of the Red-footed Boobies were in the white plumage, and about 25% were greyish-brown with a varying amount of white on the underparts and tail; the great majority of the Brown Boobies were adult, whereas most of the Frigate-birds were immature, with pale heads, though males of

both the Greater and Lesser were seen as well. One Red-footed Booby was seen to catch a flying fish in the air and swallow it in flight, while other Boobies were flighting out from the island to dive in flocks. It is not clear whether the difference in the number of birds reported is due to difficulties in estimating the numbers, or some seasonal change in them, with more present in October and February than June.

FROM THE EDITOR'S LOG BOOK

THE TALE OF THE MAGNIFICENT FRIGATE BIRD

A seaman's life is full of yarns
And long fantastic tales.
Of mates he's known, and fights he's fought,
Of flying fish and whales.

The tale I tell is short, my lads,
But never better heard,
About a man who loved to see,
The Magnificent Frigate Bird.

My mid-watch dream abruptly ceased
When the Old Man shouted, "Third!
You've got to keep a lookout for
The Magnificent Frigate Bird."

The shock of his sudden statement
Left me at loss for words,
With one huge spring, I gained the wing
To look for Frigate Birds.

Beneath the sun's relentless heat
I gazed with wrinkled brow,
But never a Tern crossed our stern
Nor Albatross our bow.

The Second Mate came up at twelve,
Breathed, "What's all this I heard?"
I sickly smiled; "The Old Man says
To find the Frigate Bird."

All afternoon the search went on
The sun fell in the sky,
The Second Mate had lost some weight
When four o'clock came by.

At half-past five, all bleary eyed,
The Mate went for his tea.
I raised with hope the telescope
To see what I could see.

Incredulous, I dropped the 'scope.
My God! At last! At last!
Unseen, unheard, a large black bird
Had landed on the mast.

The Mate returned I later learned
As I shot down below
Half running, falling down the stairs
To let the Captain know.

"You've seen it then," he cried. "Oh good!"
I followed him with pride.
Without a word he viewed the bird
And I stood by his side.

The crew came out, and Doctor Brown,
The Engineers stood by,
So filled with awe at what we saw
A tear came to the eye.

At length he turned, the sunset was
Behind him, Red and Ruby,
"If that's a Frigate Bird," he yelled,
"Then I'm a b – – – – y Booby."

by S. E. H. Wrigley, 2nd Officer

NEW MEMBERS

1972

Luff, D. W., Captain M.N., "Valeside", Cotswold Close, Tredington, Shipston-on-Stour, Warwickshire

Jones, W. T., Able Seaman M.N., 31 Langdon Road, Folkestone, Kent.

1973

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Breen, J., Radio Officer M.N., 7 Watermill Road, Raheny, Dublin, Eire

Johnson, M., Deck Cadet M.N., "Seven Gables", Stockbridge, Hants.

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Robinson, M. A., Lieut.-Cdr. R.N., 26 Hambledon Road, Waterlooville, Hants., PO7 7UB

NEW CORPORATE MEMBERSHIPS – 1973

3 further ships of Fishery Protection Service (total now 9 ships)
Ocean Weather Ship *Weather Reporter*.

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Dr W. L. N. Tickell, Makerere University, PO Box 7062, Kampala, Uganda

Terence R. Wahl, 3041 Eldridge, Bellingham, Washington 98225, U.S.A.

R. Wayne Campbell, British Columbia Provincial Museum, Victoria, British Columbia, Canada

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S. J. Sharland, ex-Chief Radio Officer M.N. Member 1967-July 1971

Commander F. H. Phillips, R.N., Member 1951-May 1972

Colonel Kenneth Comyn, Hon. Member 1956-30th September 1972

Miss Clemence Acland, Assoc. Member 1969-10th March 1973

Commander H. R. Newton, R.N.R., Member 1961-2nd June 1973

Lt.-Commander E. G. May, D.S.C., R.N., Member 1947-June 1973

MEMBERSHIP SUMMARY

1972	New Members	17
	New Corporate Members	13 (of Fleet of W. A. Souter & Co. Ltd.)
	New Associate Members	4
	Total Associate Membership	64
1973	New Members (to 1st Nov, 1973)	15
	New Corporate Members	4
	New Associate Members	7
	Total Associate Membership	67 (1 died, 2 lost touch)

MEMBERSHIP STATE (1/11/73)

Ex-Officers	7
Hon. Members	12
Life Members (original)	40
Life Members	13
Ordinary Members	207
Corporate Members	26

Totals 279 + 26 Corporate Members = 305. In addition 67 Associate Members.

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Western Australia:
Julian Ford, Lot 71, Sanderson Road, Lesmurdie, 6076, Western Australia

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D. G. Thomas, 9 Lallaby Road, Moonah, Tasmania (4 miles from Hobart). (President, Tasmanian Field Naturalists Club.)

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Dr Roger Pocklington, Bedford Institute, Dartmouth, Nova Scotia

Dr R. G. B. Brown, Canadian Wild Life Service, Marine Ecology Laboratory, Bedford Institute, Dartmouth, Nova Scotia

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Dr Paul Germain, Professor, Biology Department, Universite de Moncton, Moncton, New Brunswick

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Dr J. Wattel, Zoological Museum, Plantage Middenlaan 53, Amsterdam (C)

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Arnold Small, 3028 Cavendish Drive, Los Angeles 90064. (President, Los Angeles Audubon Society.)

WEST INDIES

Dr C. B. Lewis, O.B.E., Director and Curator, The Science Museum, Institute of Jamaica, Kingston, Jamaica. (Hon. Member, R.N.B.W.S.)

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Curator of Birds, Australia Museum, College Street, Sydney N.S.W. (H. J. de S. Disney, M.A.)

National Library of Australia, Canberra, A.C.T. 2600 (The Librarian)

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HONG KONG:

Hong Kong Bird Watching Society

INDIA:

Bombay Natural History Society, Bombay (J. C. Daniel, Curator)

MALTA:

Malta Ornithological Society

NETHERLANDS:

Rijksmuseum of Natural History, Leiden

Zoological Museum, University of Amsterdam, Amsterdam (Professor Dr K. H. Voous – Dr J. Wattel)

NEW ZEALAND:

Zoology Department, University of Canterbury, Christchurch (J. Warham)

Dominion Museum, Wellington (Dr F. C. Kinsky)

Director, New Zealand Oceanographic Institute D.S.I.R., Wellington (E. W. Dawson)

NORWAY:

Dept. of Zoology, Tromso Museum, N-900, Tromso (Dr E. Brun)

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Diplomatic Service Ornithological Society, Foreign Commonwealth Office, London, S.W.1 (Secretary, B. P. Austin)

Hampshire Field Club (Ornithological Section), Winchester

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THE ROYAL NAVAL BIRD WATCHING SOCIETY

RECEIPTS AND PAYMENTS ACCOUNT

FOR THE YEAR ENDED 30TH NOVEMBER 1972

£		£	£	1971 £	£
	Balance 1st December 1971				
	Cash at Bank		571.96	19.00	
	Subscriptions				
46.45	Under Covenant (current year)	38.82			3.75
94.67	Other (current year)	194.80			0.00
4.50	Arrears	4.50			1.50
7.42	In Advance	15.85			1.27
			253.97		20.40
	Donations		41.81	26.92	
	Income Tax recovered on members' covenanted subscriptions, donations year to 5th April 1971 (See Note 1)		39.37	5.50 35.32	
	Interest on Investment (Net)		9.18	0.00	
	Income Tax recovered on Investment Interest for 1969-70 (see Note 1)		0.00	2.50	
	Other Receipts			2.10	
	Sale of *Sea Swallow* (Vol. 21 and earlier	76.09)		3.76	
	(Vol. 22 in advance	19.36)		571.96	
			95.45		
	Sale of Christmas cards (1969-70 stock remaining)		2.40		
	Sale of *Seabirds of South Pacific*		0.00		
	Sale of Members' Ties (3.1971 13.1972)		19.75		
	Advertisement in *Sea Swallow*		0.00		
			£1033.89	£667.06	

£	£	
Production of *Sea Swallow*		
Vol. 21 (1969-70) (545 copies)		446.90
Printing		
R.N.B.W.S. Letterheads	0.00	
Sea Report Sheets	8.35	
Bankers' Order Forms	0.00	
Audited Statement 1971	1.65	
Bulletins (80-81)	11.20	
		21.20
Expenses of A.G.M.		5.75
Postage and Stationery		45.44
Purchase of Members' Ties (36)		48.60
Subscriptions		
British Trust for Ornithology		2.50
I.C.B.P. (British Section)		5.00
Bank Charges		3.50
Balance 30th November 1972		455.00
		£1033.89

NOTES:

1. A claim for refund of Income Tax amounting to £33.18 re covenants of members' subscriptions or donations for year ended 5th April 1972 is at present in the hands of the Inland Revenue together with a claim for refund of Income Tax amounting to £11.75 on Investment Interest 1971-72
2. In addition to cash in bank the assets of the Society include (*a*) £206.55 Greater London 7½% Stock 1977, Fully Paid, and (*b*) Stock of 20 Members' Ties (price £1.35 per tie). Total £27.00

I have examined the above account with the books and records of the Society and certify that it is in accordance therewith.

Costards,
West Lavington,
MIDHURST, Sussex.
1st December 1972

R. G. PEGLER, F.C.A.,
Honorary Auditor.